

130588.00025.ST25.txt  
SEQUENCE LISTING

<110> Arizona Board of Regents, acting for and on behalf of,  
Arizona State University (ABR/ASU)  
Massia, Stephen P.  
Ehteshami, Gholam R.

<120> Bioselective bioconjugates for  
anti-inflammatory/immunosuppressant therapies

<130> 130588.00025

<150> 10/295,734  
<151> 2002-11-15

<160> 219

<170> PatentIn version 3.2

<210> 1  
<211> 54  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(54)

<400> 1  
act tac aaa aca aag gag gaa atg ata gta gca acg agt cag acc agt  
48  
Thr Tyr Lys Thr Lys Glu Glu Met Ile Val Ala Thr Ser Gln Thr Ser  
1 5 10 15  
  
caa tat  
54  
Gln Tyr

<210> 2  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 2

Thr	Tyr	Lys	Thr	Lys	Glu	Glu	Met	Ile	Val	Ala	Thr	Ser	Gln	Thr	Ser
1				5					10					15	

Gln Tyr

<210> 3  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(15)

<400> 3  
 cag acc agt caa tat  
 15  
 Gln Thr Ser Gln Tyr  
 1 5

<210> 4  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 4

Gln Thr Ser Gln Tyr  
1 5

<210> 5

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(15)

<400> 5

ata gca gta ata gga  
15

Ile Ala Val Ile Gly

1

5

<210> 6

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 6

Ile Ala Val Ile Gly  
1 5

<210> 7

<211> 261

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(261)

<400> 7

aat ttc cta gag aag ttt gtt cag ggt ctc gat atc ggc cct acc aaa

48

Asn Phe Leu Glu Lys Phe Val Gln Gly Leu Asp Ile Gly Pro Thr Lys

1

5

10

15

acc cag gtc ggt ctg ata caa tat gcg aat aat cca cgc tgg ttc aat

96

Thr Gln Val Gly Leu Ile Gln Tyr Ala Asn Asn Pro Arg Trp Phe Asn

20

25

30

cta aat act tat aag act aag gaa gag atg att gtt gct acc tcc cag

44

Leu Asn Thr Tyr Lys Thr Lys Glu Glu Met Ile Val Ala Thr Ser Gln

35

40

45

act agc cag tac ggc ggt gat cta aca aat aca ttc gga gcg atc cag

92

Thr Ser Gln Tyr Gly Gly Asp Leu Thr Asn Thr Phe Gly Ala Ile Gln

50

55

60

tat gcg cga aaa tat gcg tat tca gcg gcc tct gga ggc cgt cga agt

40

Tyr Ala Arg Lys Tyr Ala Tyr Ser Ala Ala Ser Gly Gly Arg Arg Ser

65

70

75

80

gca aca ctt aaa gta atg gtg

61

Ala Thr Leu Lys Val Met Val

85

<210> 8  
 <211> 87  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 8

Asn Phe Leu Glu Lys Phe Val Gln Gly Leu Asp Ile Gly Pro Thr Lys  
 1 5 10 15

Thr Gln Val Gly Leu Ile Gln Tyr Ala Asn Asn Pro Arg Trp Phe Asn  
 20 25 30

Leu Asn Thr Tyr Lys Thr Lys Glu Glu Met Ile Val Ala Thr Ser Gln  
 35 40 45

Thr Ser Gln Tyr Gly Gly Asp Leu Thr Asn Thr Phe Gly Ala Ile Gln  
 50 55 60

Tyr Ala Arg Lys Tyr Ala Tyr Ser Ala Ala Ser Gly Gly Arg Arg Ser  
 65 70 75 80

Ala Thr Leu Lys Val Met Val  
 85

<210> 9  
 <211> 294  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS

&lt;222&gt; (1) .. (294)

&lt;400&gt; 9

tac aac gtc gac aca gaa tct gca ctt tta tat cag ggc ccg cat aat  
48

Tyr Asn Val Asp Thr Glu Ser Ala Leu Leu Tyr Gln Gly Pro His Asn

1

5

10

15

aca ctg ttt ggc tac agt tgg ctc cac tcc cat gga gct cat aga tgg  
96

Thr Leu Phe Gly Tyr Ser Trp Leu His Ser His Gly Ala His Arg Trp

20

25

30

cta ctg gta gga gcg cca aca gca atg tgg tta gca atg gca agc gtt  
44

Leu Leu Val Gly Ala Pro Thr Ala Met Trp Leu Ala Met Ala Ser Val

35

40

45

att aat cct ggg gcc atc tat aga tgc aga ata gga aaa aac cca ggg  
92

Ile Asn Pro Gly Ala Ile Tyr Arg Cys Arg Ile Gly Lys Asn Pro Gly

50

55

60

cag acg tgt gaa ttg caa ttg ggt tca ttc cac ggt gag ccc ggc ggt  
40

Gln Thr Cys Glu Leu Gln Leu Gly Ser Phe His Gly Glu Pro Gly Gly

65

70

75

80

aag act tgt cta gag gaa aga gat cac caa tgg ctt ggg gtg acc ctc  
88

Lys Thr Cys Leu Glu Glu Arg Asp His Gln Trp Leu Gly Val Thr Leu

85

90

95

tcg aga

94

Ser Arg

2

<210> 10  
 <211> 98  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 10

Tyr Asn Val Asp Thr Glu Ser Ala Leu Leu Tyr Gln Gly Pro His Asn  
 1 5 10 15

Thr Leu Phe Gly Tyr Ser Trp Leu His Ser His Gly Ala His Arg Trp  
 20 25 30

Leu Leu Val Gly Ala Pro Thr Ala Met Trp Leu Ala Met Ala Ser Val  
 35 40 45

Ile Asn Pro Gly Ala Ile Tyr Arg Cys Arg Ile Gly Lys Asn Pro Gly  
 50 55 60

Gln Thr Cys Glu Leu Gln Leu Gly Ser Phe His Gly Glu Pro Gly Gly  
 65 70 75 80

Lys Thr Cys Leu Glu Glu Arg Asp His Gln Trp Leu Gly Val Thr Leu  
 85 90 95

Ser Arg

<210> 11  
 <211> 156  
 <212> DNA  
 <213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(156)

&lt;400&gt; 11

cag gat tat gta aag aaa ttc ggc gaa cat ttt gca agt tgt caa gca  
48

Gln Asp Tyr Val Lys Lys Phe Gly Glu His Phe Ala Ser Cys Gln Ala

1

5

10

15

ggg ata tcc tcg ttc tat acg aaa gac tta atc gta atg ggt gca cca  
96

Gly Ile Ser Ser Phe Tyr Thr Lys Asp Leu Ile Val Met Gly Ala Pro

20

25

30

gga tct tca tac tgg aca gga agc tta ttt gta tac atg att acc act  
44

Gly Ser Ser Tyr Trp Thr Gly Ser Leu Phe Val Tyr Met Ile Thr Thr

35

40

45

aat aag tat aaa

56

Asn Lys Tyr Lys

50

&lt;210&gt; 12

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 12



Gln Asp Tyr Val Lys Lys Phe Gly Glu His Phe Ala Ser Cys Gln Ala  
 1 5 10 15

Gly Ile Ser Ser Phe Tyr Thr Lys Asp Leu Ile Val Met Gly Ala Pro  
 20 25 30

Gly Ser Ser Tyr Trp Thr Gly Ser Leu Phe Val Tyr Met Ile Thr Thr  
 35 40 45

Asn Lys Tyr Lys  
 50

<210> 13

<211> 156

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(156)

<400> 13

cag gat tat gta aag aaa ttc ggc gaa cat ttt gca agt tgt caa gca  
 48

Gln Asp Tyr Val Lys Lys Phe Gly Glu His Phe Ala Ser Cys Gln Ala

1 5 10 15

ggg ata tcc tcg ttc tat acg aaa gac tta atc gta atg ggt gca cca  
 96

Gly Ile Ser Ser Phe Tyr Thr Lys Asp Leu Ile Val Met Gly Ala Pro

20 25 30

gga tct tca tac tgg aca gga agc tta ttt gta tac atg att acc act  
 44

Gly Ser Ser Tyr Trp Thr Gly Ser Leu Phe Val Tyr Met Ile Thr Thr

1

35

40

45

aat aag tat aaa

1

56

Asn Lys Tyr Lys

50

&lt;210&gt; 14

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 14

Gln	Asp	Tyr	Val	Lys	Lys	Phe	Gly	Glu	His	Phe	Ala	Ser	Cys	Gln	Ala
1				5					10					15	

Gly	Ile	Ser	Ser	Phe	Tyr	Thr	Lys	Asp	Leu	Ile	Val	Met	Gly	Ala	Pro
			20					25					30		

Gly	Ser	Ser	Tyr	Trp	Thr	Gly	Ser	Leu	Phe	Val	Tyr	Met	Ile	Thr	Thr
			35				40					45			

Asn Lys Tyr Lys

50

&lt;210&gt; 15

&lt;211&gt; 60

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

<222> (1)..(60)

<400> 15

gga cat aga tgg aaa aac ata ttt tat ata aag aat gaa aat aaa tta  
48

Gly His Arg Trp Lys Asn Ile Phe Tyr Ile Lys Asn Glu Asn Lys Leu

1

5

10

15

cca aca gga gga

60

Pro Thr Gly Gly

20

<210> 16

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 16

Gly His Arg Trp Lys Asn Ile Phe Tyr Ile Lys Asn Glu Asn Lys Leu  
1 5 10 15

Pro Thr Gly Gly

20

<210> 17

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(33)

<400> 17  
 gga gga gca cca cag cat gaa caa ata gga aaa  
 33  
 Gly Gly Ala Pro Gln His Glu Gln Ile Gly Lys

1 5 10

<210> 18  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 18  
 Gly Gly Ala Pro Gln His Glu Gln Ile Gly Lys  
 1 5 10

<210> 19  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(18)

<400> 19  
 agt tat tgg aca gga agt  
 18  
 Ser Tyr Trp Thr Gly Ser

1 5

<210> 20  
 <211> 6

<212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 20

Ser Tyr Trp Thr Gly Ser  
 1 5

<210> 21  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(33)

<400> 21  
 atg gga gca cca gga agt agt tat tgg aca gga  
 33  
 Met Gly Ala Pro Gly Ser Ser Tyr Trp Thr Gly  
 1 5 10

<210> 22  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 22

Met Gly Ala Pro Gly Ser Ser Tyr Trp Thr Gly  
 1 5 10

<210> 23  
 <211> 111  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(111)

<400> 23  
 tac aat gta gat aca gaa agt gca tta ctc tat caa ggt cca cac aac  
 48  
 Tyr Asn Val Asp Thr Glu Ser Ala Leu Leu Tyr Gln Gly Pro His Asn  
 1 5 10 15

aca ttg ttt ggg tat agt tgg ctt cat agt cat gga gca cac aga tgg  
 96  
 Thr Leu Phe Gly Tyr Ser Trp Leu His Ser His Gly Ala His Arg Trp  
 20 25 30

ctg cta gta ggc gca  
 11  
 Leu Leu Val Gly Ala  
 35

1

<210> 24  
 <211> 37  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 24  
 Tyr Asn Val Asp Thr Glu Ser Ala Leu Leu Tyr Gln Gly Pro His Asn  
 1 5 10 15

Thr Leu Phe Gly Tyr Ser Trp Leu His Ser His Gly Ala His Arg Trp  
                   20                                  25                                  30

Leu Leu Val Gly Ala  
                   35

<210> 25  
 <211> 225  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(225)

<400> 25  
 ata gta acg tgt ggc cat aga tgg aaa aat att ttt tat atc aaa cac  
 48  
 Ile Val Thr Cys Gly His Arg Trp Lys Asn Ile Phe Tyr Ile Lys His  
 1                  5                                  10                                  15

gaa aac aaa tta cca aca gga ggg tgt tat ggc gtg ccc ccg gat tta  
 96  
 Glu Asn Lys Leu Pro Thr Gly Gly Cys Tyr Gly Val Pro Pro Asp Leu  
                   20                                  25                                  30

aga acc gaa tta agt aag aga ata gcc cct ggt tat cag gac tac gtt  
 44  
 Arg Thr Glu Leu Ser Lys Arg Ile Ala Pro Gly Tyr Gln Asp Tyr Val  
                   35                                  40                                  45

aaa aag ttc gga gag cat ttt gct agt tgc caa gca ggt atc agt agt  
 92  
 Lys Lys Phe Gly Glu His Phe Ala Ser Cys Gln Ala Gly Ile Ser Ser

50

55

60

ttc tac act aag gat tta att gtc atg ggg gcg

2

25

Phe Tyr Thr Lys Asp Leu Ile Val Met Gly Ala

65

70

75

&lt;210&gt; 26

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 26

Ile	Val	Thr	Cys	Gly	His	Arg	Trp	Lys	Asn	Ile	Phe	Tyr	Ile	Lys	His
1			5						10					15	

Glu	Asn	Lys	Leu	Pro	Thr	Gly	Gly	Cys	Tyr	Gly	Val	Pro	Pro	Asp	Leu
			20					25					30		

Arg	Thr	Glu	Leu	Ser	Lys	Arg	Ile	Ala	Pro	Gly	Tyr	Gln	Asp	Tyr	Val
		35					40						45		

Lys	Lys	Phe	Gly	Glu	His	Phe	Ala	Ser	Cys	Gln	Ala	Gly	Ile	Ser	Ser
	50					55					60				

Phe	Tyr	Thr	Lys	Asp	Leu	Ile	Val	Met	Gly	Ala
65					70				75	

&lt;210&gt; 27

&lt;211&gt; 222

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;



<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(222)

<400> 27

tac atg att acc act aac aag tat aaa gcg ttt tta ggg aag caa aat  
48

Tyr Met Ile Thr Thr Asn Lys Tyr Lys Ala Phe Leu Gly Lys Gln Asn

1 5 10 15

cag gtg aag cca gga agt tat tta ggg tat agt gta ggt gcc ggc cat  
96

Gln Val Lys Pro Gly Ser Tyr Leu Gly Tyr Ser Val Gly Ala Gly His

20 25 30

ttc aga agt caa cac acg aca gaa gtt gtc ggc ggt gca cca caa cat  
44

Phe Arg Ser Gln His Thr Thr Glu Val Val Gly Gly Ala Pro Gln His

35 40 45

gag cag ata gga aaa gct tac atc ttt agt ata gat gaa aaa gaa tta  
92

Glu Gln Ile Gly Lys Ala Tyr Ile Phe Ser Ile Asp Glu Lys Glu Leu

50 55 60

aat ata tta cac gag atg aag gga aaa aaa  
22

Asn Ile Leu His Glu Met Lys Gly Lys Lys

65 70

<210> 28

<211> 74

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 28

Tyr Met Ile Thr Thr Asn Lys Tyr Lys Ala Phe Leu Gly Lys Gln Asn  
1 5 10 15

Gln Val Lys Pro Gly Ser Tyr Leu Gly Tyr Ser Val Gly Ala Gly His  
20 25 30

Phe Arg Ser Gln His Thr Thr Glu Val Val Gly Gly Ala Pro Gln His  
35 40 45

Glu Gln Ile Gly Lys Ala Tyr Ile Phe Ser Ile Asp Glu Lys Glu Leu  
50 55 60

Asn Ile Leu His Glu Met Lys Gly Lys Lys  
65 70

<210> 29

<211> 849

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(849)

<400> 29

tta gga tca tat ttc gga gca tcc gtc ggc gca gtc gac tta cac gct  
48

Leu Gly Ser Tyr Phe Gly Ala Ser Val Gly Ala Val Asp Leu His Ala

1 5 10 15

gat ggc ttc tca gac ctg ctc gtc ggt gct ccc atg caa tcg acg ata

96

Asp Gly Phe Ser Asp Leu Leu Val Gly Ala Pro Met Gln Ser Thr Ile

20

25

30

aga gaa gag ggt aga gtt ttt gtt tac atc aat tct gga agc ggg gca  
44

1

Arg Glu Glu Gly Arg Val Phe Val Tyr Ile Asn Ser Gly Ser Gly Ala

35

40

45

gtt atg aac gca atg gag aca aac tta gtg gga agt gac aaa tac gca  
92

1

Val Met Asn Ala Met Glu Thr Asn Leu Val Gly Ser Asp Lys Tyr Ala

50

55

60

gcg cga ttt ggg gaa tcc atc gtg aat ttg gga gat att gac aat gac  
40

2

Ala Arg Phe Gly Glu Ser Ile Val Asn Leu Gly Asp Ile Asp Asn Asp

65

70

75

80

ggg ttt gaa gac gta gcg att gga gca cca cag gag gac gat ctc cag  
88

2

Gly Phe Glu Asp Val Ala Ile Gly Ala Pro Gln Glu Asp Asp Leu Gln

85

90

95

gga gct atc tat atc tac aac ggc aga gcg gat ggt ata tct tca aca  
36

3

Gly Ala Ile Tyr Ile Tyr Asn Gly Arg Ala Asp Gly Ile Ser Ser Thr

100

105

110

ttt tcc caa aga att gag ggc cta caa ata tcg aag tcg cta tcc atg  
84

3

Phe Ser Gln Arg Ile Glu Gly Leu Gln Ile Ser Lys Ser Leu Ser Met

115

120

125

## 130588.00025.ST25.txt

ttt ggg cag agt att tct ggt cag atc gac gcg gat aac aat ggc tat 4  
32

Phe Gly Gln Ser Ile Ser Gly Gln Ile Asp Ala Asp Asn Asn Gly Tyr

130

135

140

gtg gat gta gca gta ggc gcg ttc agg agt gat cgt agc gat tct gct 4  
80

Val Asp Val Ala Val Gly Ala Phe Arg Ser Asp Arg Ser Asp Ser Ala

145

150

155

160

gtt ttg tta aga acg cgt cca gtc gtc ata gtg gac gct tca ctt agt 5  
28

Val Leu Leu Arg Thr Arg Pro Val Val Ile Val Asp Ala Ser Leu Ser

165

170

175

cat cct gaa tca gta aac cga aca aag ttt gat tgt gtc gag aat ggg 5  
76

His Pro Glu Ser Val Asn Arg Thr Lys Phe Asp Cys Val Glu Asn Gly

180

185

190

tgg ccg agc gtg tgt ata gat ctg aca tta tgc ttc tcg tac aaa ggg 6  
24

Trp Pro Ser Val Cys Ile Asp Leu Thr Leu Cys Phe Ser Tyr Lys Gly

195

200

205

aag gaa gtt cct ggt tat att gta tta ttc tac aat atg agt ctt gat 6  
72

Lys Glu Val Pro Gly Tyr Ile Val Leu Phe Tyr Asn Met Ser Leu Asp

210

215

220

gtt aac cgc aaa gcc gaa tcg cca ccg cgg ttt tat ttc agt agc aat 7  
20

Val Asn Arg Lys Ala Glu Ser Pro Pro Arg Phe Tyr Phe Ser Ser Asn

225

230

235

240

ggt act agt gat gta att act gga agc ata caa gtg tct tcc aga gaa 7  
68

Gly Thr Ser Asp Val Ile Thr Gly Ser Ile Gln Val Ser Ser Arg Glu

245

250

255

gcc aac tgc cgg acc cat caa gcc ttc atg cgc aaa gac gta agg gac 8  
16

Ala Asn Cys Arg Thr His Gln Ala Phe Met Arg Lys Asp Val Arg Asp

260

265

270

ata tta acc ccc ata cag atc gag gcc gcc tat 8  
49

Ile Leu Thr Pro Ile Gln Ile Glu Ala Ala Tyr

275

280

<210> 30

<211> 283

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 30

Leu Gly Ser Tyr Phe Gly Ala Ser Val Gly Ala Val Asp Leu His Ala  
1 5 10 15

Asp Gly Phe Ser Asp Leu Leu Val Gly Ala Pro Met Gln Ser Thr Ile  
20 25 30

Arg Glu Glu Gly Arg Val Phe Val Tyr Ile Asn Ser Gly Ser Gly Ala  
35 40 45

Val Met Asn Ala Met Glu Thr Asn Leu Val Gly Ser Asp Lys Tyr Ala  
50 55 60

Ala Arg Phe Gly Glu Ser Ile Val Asn Leu Gly Asp Ile Asp Asn Asp  
65 70 75 80

Gly Phe Glu Asp Val Ala Ile Gly Ala Pro Gln Glu Asp Asp Leu Gln  
85 90 95

Gly Ala Ile Tyr Ile Tyr Asn Gly Arg Ala Asp Gly Ile Ser Ser Thr  
100 105 110

Phe Ser Gln Arg Ile Glu Gly Leu Gln Ile Ser Lys Ser Leu Ser Met  
115 120 125

Phe Gly Gln Ser Ile Ser Gly Gln Ile Asp Ala Asp Asn Asn Gly Tyr  
130 135 140

Val Asp Val Ala Val Gly Ala Phe Arg Ser Asp Arg Ser Asp Ser Ala  
145 150 155 160

Val Leu Leu Arg Thr Arg Pro Val Val Ile Val Asp Ala Ser Leu Ser  
165 170 175

His Pro Glu Ser Val Asn Arg Thr Lys Phe Asp Cys Val Glu Asn Gly  
180 185 190

Trp Pro Ser Val Cys Ile Asp Leu Thr Leu Cys Phe Ser Tyr Lys Gly  
195 200 205

Lys Glu Val Pro Gly Tyr Ile Val Leu Phe Tyr Asn Met Ser Leu Asp  
210 215 220

Val Asn Arg Lys Ala Glu Ser Pro Pro Arg Phe Tyr Phe Ser Ser Asn  
225 230 235 240

Gly Thr Ser Asp Val Ile Thr Gly Ser Ile Gln Val Ser Ser Arg Glu  
245 250 255

Ala Asn Cys Arg Thr His Gln Ala Phe Met Arg Lys Asp Val Arg Asp  
                   260                                  265                                  270

Ile Leu Thr Pro Ile Gln Ile Glu Ala Ala Tyr  
                   275                                  280

<210> 31

<211> 1032

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(1032)

<400> 31

tcc tca ata tat gac gac tcc tac ctc gga tac agt gta gcg gtc ggc  
 48

Ser Ser Ile Tyr Asp Asp Ser Tyr Leu Gly Tyr Ser Val Ala Val Gly

1                                  5                                  10                                  15

gaa ttt tcg gga gac gac aca gaa gat ttt gta gct ggg gtg ccc aaa  
 96

Glu Phe Ser Gly Asp Asp Thr Glu Asp Phe Val Ala Gly Val Pro Lys

20                                  25                                  30

ggg aat ttg act tat ggc tac gtt acc ata cta aat ggt tct gat att  
 44

Gly Asn Leu Thr Tyr Gly Tyr Val Thr Ile Leu Asn Gly Ser Asp Ile

35                                  40                                  45

cgt agt tta tat aat ttc agt ggg gag caa atg gca agc tat ttc gga  
 92

Arg Ser Leu Tyr Asn Phe Ser Gly Glu Gln Met Ala Ser Tyr Phe Gly

50

55

60

tat gcg gta gca gcg acc gac gtc aac ggt gat ggg ctg gac gat ttg 2  
40

Tyr Ala Val Ala Ala Thr Asp Val Asn Gly Asp Gly Leu Asp Asp Leu

65 70 75 80

ctt gtc ggg gcc ccg tta ctt atg gac cgc act cca gat gga aga cca 2  
88

Leu Val Gly Ala Pro Leu Leu Met Asp Arg Thr Pro Asp Gly Arg Pro

85 90 95

cag gaa gtg ggt cgt gta tat gtg tac tta cag cac cca gca ggt ata 3  
36

Gln Glu Val Gly Arg Val Tyr Val Tyr Leu Gln His Pro Ala Gly Ile

100 105 110

gag ccg aca ccg act ttg acg cta acc gga cac gac gag ttc ggc cgg 3  
84

Glu Pro Thr Pro Thr Leu Thr Leu Thr Gly His Asp Glu Phe Gly Arg

115 120 125

ttt ggc agt tca tta aca ccc ctt gga gac tta gat cag gat gga tac 4  
32

Phe Gly Ser Ser Leu Thr Pro Leu Gly Asp Leu Asp Gln Asp Gly Tyr

130 135 140

aat gac gtt gct att ggg gca cca ttt ggt ggc gaa acg caa caa ggt 4  
80

Asn Asp Val Ala Ile Gly Ala Pro Phe Gly Gly Glu Thr Gln Gln Gly

145 150 155 160

gta gta ttc gtg ttt cct gga ggc cct gga ggc tta ggc agt aaa cct 5  
28

Val Val Phe Val Phe Pro Gly Gly Pro Gly Gly Leu Gly Ser Lys Pro



165	170	175	
tcg caa gtt ttg cag cca cta tgg gcc gct agc cat acg ccc gat ttc			5
76.			
Ser Gln Val Leu Gln Pro Leu Trp Ala Ala Ser His Thr Pro Asp Phe			
180	185	190	
ttt ggc agc gct ctg aga ggg ggg agg gac ctc gac ggt aac ggg tat			6
24			
Phe Gly Ser Ala Leu Arg Gly Gly Arg Asp Leu Asp Gly Asn Gly Tyr			
195	200	205	
cct gat ctg atc gtt ggt agt ttt gga gtc gat aag gcg gtg gtc tac			6
72			
Pro Asp Leu Ile Val Gly Ser Phe Gly Val Asp Lys Ala Val Val Tyr			
210	215	220	
aga ggg ggg ccc ata gtt tca gca agt gcc agc ctt acg ata ttc ccc			7
20			
Arg Gly Gly Pro Ile Val Ser Ala Ser Ala Ser Leu Thr Ile Phe Pro			
225	230	235	240
gcc atg ttt aat cct gag gag aga tct tgc tca ttg gaa ggt aac ccg			7
68			
Ala Met Phe Asn Pro Glu Glu Arg Ser Cys Ser Leu Glu Gly Asn Pro			
245	250	255	
gtc gcg tgt atc aac ctc tcc ttc tgt tta aac gca tcg ggt aaa cat			8
16			
Val Ala Cys Ile Asn Leu Ser Phe Cys Leu Asn Ala Ser Gly Lys His			
260	265	270	
gtg gct gat tcg atc gga ttt aca gta gaa ctt caa cta gat tgg cag			8
64			

130588.00025.ST25.txt

Val Ala Asp Ser Ile Gly Phe Thr Val Glu Leu Gln Leu Asp Trp Gln

275

280

285

aag caa aaa ggc gga gtt aga cga gcc ctc ttc ctc gca tcc agg cag  
12

9

Lys Gln Lys Gly Gly Val Arg Arg Ala Leu Phe Leu Ala Ser Arg Gln

290

295

300

gcg act tta aca caa acc cta ctg ata cag aac gga gcc aga gag gat  
60

9

Ala Thr Leu Thr Gln Thr Leu Leu Ile Gln Asn Gly Ala Arg Glu Asp

305

310

315

320

tgc cgc gaa atg aag atc tac ctg aga aat gaa tct gag ttc cga gac  
08

10

Cys Arg Glu Met Lys Ile Tyr Leu Arg Asn Glu Ser Glu Phe Arg Asp

325

330

335

aag tta tct ccg att cat att gct  
32

10

Lys Leu Ser Pro Ile His Ile Ala

340

<210> 32

<211> 344

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 32

Ser Ser Ile Tyr Asp Asp Ser Tyr Leu Gly Tyr Ser Val Ala Val Gly  
1 5 10 15

## 130588.00025.ST25.txt

Glu Phe Ser Gly Asp Asp Thr Glu Asp Phe Val Ala Gly Val Pro Lys  
 20 25 30

Gly Asn Leu Thr Tyr Gly Tyr Val Thr Ile Leu Asn Gly Ser Asp Ile  
 35 40 45

Arg Ser Leu Tyr Asn Phe Ser Gly Glu Gln Met Ala Ser Tyr Phe Gly  
 50 55 60

Tyr Ala Val Ala Ala Thr Asp Val Asn Gly Asp Gly Leu Asp Asp Leu  
 65 70 75 80

Leu Val Gly Ala Pro Leu Leu Met Asp Arg Thr Pro Asp Gly Arg Pro  
 85 90 95

Gln Glu Val Gly Arg Val Tyr Val Tyr Leu Gln His Pro Ala Gly Ile  
 100 105 110

Glu Pro Thr Pro Thr Leu Thr Leu Thr Gly His Asp Glu Phe Gly Arg  
 115 120 125

Phe Gly Ser Ser Leu Thr Pro Leu Gly Asp Leu Asp Gln Asp Gly Tyr  
 130 135 140

Asn Asp Val Ala Ile Gly Ala Pro Phe Gly Gly Glu Thr Gln Gln Gly  
 145 150 155 160

Val Val Phe Val Phe Pro Gly Gly Pro Gly Gly Leu Gly Ser Lys Pro  
 165 170 175

Ser Gln Val Leu Gln Pro Leu Trp Ala Ala Ser His Thr Pro Asp Phe  
 180 185 190

Phe Gly Ser Ala Leu Arg Gly Gly Arg Asp Leu Asp Gly Asn Gly Tyr  
 195 200 205

130588.00025.ST25.txt

Pro Asp Leu Ile Val Gly Ser Phe Gly Val Asp Lys Ala Val Val Tyr  
210 215 220

Arg Gly Gly Pro Ile Val Ser Ala Ser Ala Ser Leu Thr Ile Phe Pro  
225 230 235 240

Ala Met Phe Asn Pro Glu Glu Arg Ser Cys Ser Leu Glu Gly Asn Pro  
245 250 255

Val Ala Cys Ile Asn Leu Ser Phe Cys Leu Asn Ala Ser Gly Lys His  
260 265 270

Val Ala Asp Ser Ile Gly Phe Thr Val Glu Leu Gln Leu Asp Trp Gln  
275 280 285

Lys Gln Lys Gly Gly Val Arg Arg Ala Leu Phe Leu Ala Ser Arg Gln  
290 295 300

Ala Thr Leu Thr Gln Thr Leu Leu Ile Gln Asn Gly Ala Arg Glu Asp  
305 310 315 320

Cys Arg Glu Met Lys Ile Tyr Leu Arg Asn Glu Ser Glu Phe Arg Asp  
325 330 335

Lys Leu Ser Pro Ile His Ile Ala  
340

<210> 33

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(660)

&lt;400&gt; 33

agc tac cta gga tat agt gtt gct gta ggc gag ttc agc gga gat gat  
48

Ser Tyr Leu Gly Tyr Ser Val Ala Val Gly Glu Phe Ser Gly Asp Asp

1 5 10 15

aca gaa gac ttt gtt gca ggg gtg cct aag ggg aat cta aca tat ggg  
96

Thr Glu Asp Phe Val Ala Gly Val Pro Lys Gly Asn Leu Thr Tyr Gly

20 25 30

tac gta aca atc ctc aac gga tcg gat att cgt agt tta tac aat ttc  
44

Tyr Val Thr Ile Leu Asn Gly Ser Asp Ile Arg Ser Leu Tyr Asn Phe

35 40 45

tcc ggt gag caa atg gcc tca tat ttt gga tac gcc gtt gcg gct acg  
92

Ser Gly Glu Gln Met Ala Ser Tyr Phe Gly Tyr Ala Val Ala Ala Thr

50 55 60

gac gtt aac ggt gac gga tta gac gat ctt ctt gtg gga gct ccc ctg  
40

Asp Val Asn Gly Asp Gly Leu Asp Asp Leu Leu Val Gly Ala Pro Leu

65 70 75 80

ctg atg gac cga acc cct gat ggt aga ccc cag gaa gtc gga aga gtc  
88

Leu Met Asp Arg Thr Pro Asp Gly Arg Pro Gln Glu Val Gly Arg Val

85 90 95

tac gtc tac ttg caa cat ccc gcc ggc ata gaa cca acg cca act tta  
36

Tyr Val Tyr Leu Gln His Pro Ala Gly Ile Glu Pro Thr Pro Thr Leu

1

1

2

2

3

100

105

110

act ctc act ggg cat gac gaa ttt ggt aga ttc ggt tcc tct tta acc 3  
84

Thr Leu Thr Gly His Asp Glu Phe Gly Arg Phe Gly Ser Ser Leu Thr

115

120

125

cct ctt ggc gac ttg gac cag gat gga tat aat gat gtg gca ata ggc 4  
32

Pro Leu Gly Asp Leu Asp Gln Asp Gly Tyr Asn Asp Val Ala Ile Gly

130

135

140

gcg ccg ttt ggg ggg gag acc cag caa ggc gtg gtg ttc gtc ttt cca 4  
80

Ala Pro Phe Gly Gly Glu Thr Gln Gln Gly Val Val Phe Val Phe Pro

145

150

155

160

ggt gga ccg ggt ggg cta ggg tct aaa cca tca caa gtt tta cag cca 5  
28

Gly Gly Pro Gly Gly Leu Gly Ser Lys Pro Ser Gln Val Leu Gln Pro

165

170

175

tta tgg gca gcg agt cac acg cca gat ttt ttc ggc agt gca ctc agg 5  
76

Leu Trp Ala Ala Ser His Thr Pro Asp Phe Phe Gly Ser Ala Leu Arg

180

185

190

ggt gga cgg gac ttg gac ggc aac ggc tat ccg gat ctg ata gta ggg 6  
24

Gly Gly Arg Asp Leu Asp Gly Asn Gly Tyr Pro Asp Leu Ile Val Gly

195

200

205

tcg ttc ggt gta gat aaa gca gta gtc tat cgc ggg 6  
60

Ser Phe Gly Val Asp Lys Ala Val Val Tyr Arg Gly

210

215

220

&lt;210&gt; 34

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 34

Ser Tyr Leu Gly Tyr Ser Val Ala Val Gly Glu Phe Ser Gly Asp Asp  
 1 5 10 15

Thr Glu Asp Phe Val Ala Gly Val Pro Lys Gly Asn Leu Thr Tyr Gly  
 20 25 30

Tyr Val Thr Ile Leu Asn Gly Ser Asp Ile Arg Ser Leu Tyr Asn Phe  
 35 40 45

Ser Gly Glu Gln Met Ala Ser Tyr Phe Gly Tyr Ala Val Ala Ala Thr  
 50 55 60

Asp Val Asn Gly Asp Gly Leu Asp Asp Leu Leu Val Gly Ala Pro Leu  
 65 70 75 80

Leu Met Asp Arg Thr Pro Asp Gly Arg Pro Gln Glu Val Gly Arg Val  
 85 90 95

Tyr Val Tyr Leu Gln His Pro Ala Gly Ile Glu Pro Thr Pro Thr Leu  
 100 105 110

Thr Leu Thr Gly His Asp Glu Phe Gly Arg Phe Gly Ser Ser Leu Thr  
 115 120 125

Pro Leu Gly Asp Leu Asp Gln Asp Gly Tyr Asn Asp Val Ala Ile Gly

130

135

140

Ala Pro Phe Gly Gly Glu Thr Gln Gln Gly Val Val Phe Val Phe Pro  
 145 150 155 160

Gly Gly Pro Gly Gly Leu Gly Ser Lys Pro Ser Gln Val Leu Gln Pro  
 165 170 175

Leu Trp Ala Ala Ser His Thr Pro Asp Phe Phe Gly Ser Ala Leu Arg  
 180 185 190

Gly Gly Arg Asp Leu Asp Gly Asn Gly Tyr Pro Asp Leu Ile Val Gly  
 195 200 205

Ser Phe Gly Val Asp Lys Ala Val Val Tyr Arg Gly  
 210 215 220

&lt;210&gt; 35

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(360)

&lt;400&gt; 35

gca cat ggt tcg agc atc tta gca tgc gct cct ctc tac agc tgg aga  
 48

Ala His Gly Ser Ser Ile Leu Ala Cys Ala Pro Leu Tyr Ser Trp Arg

1

5

10

15

acg gaa aaa gaa ccc tta tct gat ccg gtc ggg acg tgt tat tta tcg  
 96

Thr Glu Lys Glu Pro Leu Ser Asp Pro Val Gly Thr Cys Tyr Leu Ser



20.

25

30

acc gac aac ttt aca aga atc tta gag tac gcg cca tgt aga tct gat. 1  
44

Thr Asp Asn Phe Thr Arg Ile Leu Glu Tyr Ala Pro Cys Arg Ser Asp

35

40

45

ttc agt tgg gca gcg ggt caa ggg tat tgc caa ggc ggc ttc agt gcc 1  
92

Phe Ser Trp Ala Ala Gly Gln Gly Tyr Cys Gln Gly Gly Phe Ser Ala

50

55

60

gaa ttt act aag acc gga aga gta gtg ctt gga ggt cca gga tca tac 2  
40

Glu Phe Thr Lys Thr Gly Arg Val Val Leu Gly Gly Pro Gly Ser Tyr

65

70

75

80

ttt tgg cag ggg caa att cta tcc gct aca caa gag cag ata gca gag 2  
88

Phe Trp Gln Gly Gln Ile Leu Ser Ala Thr Gln Glu Gln Ile Ala Glu

85

90

95

agt tat tat cca gaa tac ctg ata aat tta gtt cag ggc cag ttg cag 3  
36

Ser Tyr Tyr Pro Glu Tyr Leu Ile Asn Leu Val Gln Gly Gln Leu Gln

100

105

110

act aga caa gcc tca tcc att tat 3  
60

Thr Arg Gln Ala Ser Ser Ile Tyr

115

120

&lt;210&gt; 36

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 36

Ala	His	Gly	Ser	Ser	Ile	Leu	Ala	Cys	Ala	Pro	Leu	Tyr	Ser	Trp	Arg
1				5					10					15	

Thr	Glu	Lys	Glu	Pro	Leu	Ser	Asp	Pro	Val	Gly	Thr	Cys	Tyr	Leu	Ser
			20					25					30		

Thr	Asp	Asn	Phe	Thr	Arg	Ile	Leu	Glu	Tyr	Ala	Pro	Cys	Arg	Ser	Asp
		35					40					45			

Phe	Ser	Trp	Ala	Ala	Gly	Gln	Gly	Tyr	Cys	Gln	Gly	Gly	Phe	Ser	Ala
	50					55					60				

Glu	Phe	Thr	Lys	Thr	Gly	Arg	Val	Val	Leu	Gly	Gly	Pro	Gly	Ser	Tyr
65					70					75					80

Phe	Trp	Gln	Gly	Gln	Ile	Leu	Ser	Ala	Thr	Gln	Glu	Gln	Ile	Ala	Glu
			85						90					95	

Ser	Tyr	Tyr	Pro	Glu	Tyr	Leu	Ile	Asn	Leu	Val	Gln	Gly	Gln	Leu	Gln
			100					105					110		

Thr	Arg	Gln	Ala	Ser	Ser	Ile	Tyr
		115					120

&lt;210&gt; 37

&lt;211&gt; 18

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(18)

<400> 37  
 gat ttt agt tgg gca gca  
 18  
 Asp Phe Ser Trp Ala Ala

1 5

<210> 38  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 38

Asp Phe Ser Trp Ala Ala  
 1 5

<210> 39  
 <211> 72  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(72)

<400> 39  
 gga gta gac gta gat cag gat ggc gaa aca gag tta ata gga gca cca  
 48  
 Gly Val Asp Val Asp Gln Asp Gly Glu Thr Glu Leu Ile Gly Ala Pro

1 5 10 15

tta ttt tat ggt gaa caa aga ggg

72

Leu Phe Tyr Gly Glu Gln Arg Gly

20

<210> 40

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 40

Gly Val Asp Val Asp Gln Asp Gly Glu Thr Glu Leu Ile Gly Ala Pro

1

5

10

15

Leu Phe Tyr Gly Glu Gln Arg Gly

20

<210> 41

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(72)

<400> 41

ata aca gat gga gaa gca aca gac agt gga caa att gat gca gca aaa

48

Ile Thr Asp Gly Glu Ala Thr Asp Ser Gly Gln Ile Asp Ala Ala Lys

1

5

10

15

gac atc ata tat att ata gga atc

72

Asp Ile Ile Tyr Ile Ile Gly Ile

20

<210> 42

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 42

Ile Thr Asp Gly Glu Ala Thr Asp Ser Gly Gln Ile Asp Ala Ala Lys

1

5

10

15

Asp Ile Ile Tyr Ile Ile Gly Ile

20

<210> 43

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(30)

<400> 43

ata aca gat gga gaa gca aca agt gga tgt

30

Ile Thr Asp Gly Glu Ala Thr Ser Gly Cys

1

5

10

<210> 44  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 44

Ile Thr Asp Gly Glu Ala Thr Ser Gly Cys  
 1 5 10

<210> 45  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(33)

<400> 45  
 gga gta gac gta gat caa gat gga gaa aca tgt  
 33  
 Gly Val Asp Val Asp Gln Asp Gly Glu Thr Cys  
 1 5 10

<210> 46  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 46

Gly Val Asp Val Asp Gln Asp Gly Glu Thr Cys  
 1 5 10

<210> 47  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(24)

<400> 47  
 tgc cca aat aag gaa aaa gag tgt  
 24  
 Cys Pro Asn Lys Glu Lys Glu Cys

1 5

<210> 48  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 48

Cys Pro Asn Lys Glu Lys Glu Cys  
 1 5

<210> 49  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>

&lt;221&gt; CDS

&lt;222&gt; (1)..(18)

&lt;400&gt; 49

aaa gaa ttt gta agt aca

18

Lys Glu Phe Val Ser Thr

1

5

&lt;210&gt; 50

&lt;211&gt; 6

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 50

Lys Glu Phe Val Ser Thr

1

5

&lt;210&gt; 51

&lt;211&gt; 51

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(51)

&lt;400&gt; 51

cca ata aca caa tta tta gga aga acc cat acg gca act gga ata aga

48

Pro Ile Thr Gln Leu Leu Gly Arg Thr His Thr Ala Thr Gly Ile Arg

1

5

10

15

aaa



51  
Lys

<210> 52  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 52

Pro Ile Thr Gln Leu Leu Gly Arg Thr His Thr Ala Thr Gly Ile Arg  
1 5 10 15

Lys

<210> 53  
<211> 51  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(51)

<400> 53  
aaa ttt gga gac cca tta gga tat gaa gat gta ata cca gag gca gat  
48  
Lys Phe Gly Asp Pro Leu Gly Tyr Glu Asp Val Ile Pro Glu Ala Asp  
1 5 10 15

aga  
51

Arg

<210> 54  
 <211> 17  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Integrin  
  
 <400> 54

Lys Phe Gly Asp Pro Leu Gly Tyr Glu Asp Val Ile Pro Glu Ala Asp  
 1 5 10 15

Arg

<210> 55  
 <211> 72  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(72)

<400> 55  
 gga tgt cca caa gaa gat agt gac att gca ttc tta ata gat gga agt  
 48  
 Gly Cys Pro Gln Glu Asp Ser Asp Ile Ala Phe Leu Ile Asp Gly Ser  
 1 5 10 15

gga agt ata atc cca cat gac ttt  
 72  
 Gly Ser Ile Ile Pro His Asp Phe

20

<210> 56  
 <211> 24  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 56

Gly Cys Pro Gln Glu Asp Ser Asp Ile Ala Phe Leu Ile Asp Gly Ser  
 1 5 10 15

Gly Ser Ile Ile Pro His Asp Phe  
 20

<210> 57  
 <211> 69  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(69)

<400> 57  
 ttt aga aga atg aaa gag ttt gta agt aca gta atg gaa caa tta aag  
 48  
 Phe Arg Arg Met Lys Glu Phe Val Ser Thr Val Met Glu Gln Leu Lys  
 1 5 10 15

aaa agt aag aca tta ttc agt  
 69  
 Lys Ser Lys Thr Leu Phe Ser

20.

<210> 58  
 <211> 23  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 58

Phe Arg Arg Met Lys Glu Phe Val Ser Thr Val Met Glu Gln Leu Lys  
 1 5 10 15

Lys Ser Lys Thr Leu Phe Ser  
 20

<210> 59  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(54)

<400> 59  
 gga aat agt ttt cca gca agt tta gta gta gca gca gaa gag gga gag  
 48  
 Gly Asn Ser Phe Pro Ala Ser Leu Val Val Ala Ala Glu Glu Gly Glu  
 1 5 10 15

aga gaa  
 54  
 Arg Glu

<210> 60  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 60

Gly Asn Ser Phe Pro Ala Ser Leu Val Val Ala Ala Glu Glu Gly Glu  
 1 5 10 15

Arg Glu

<210> 61  
 <211> 84  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(84)

<400> 61  
 aac gca caa atc gga att gca atg tta gta agt gta gga aat tta gag  
 48  
 Asn Ala Gln Ile Gly Ile Ala Met Leu Val Ser Val Gly Asn Leu Glu  
 1 5 10 15

gaa gca gga gaa agt gta agt ttt caa tta cag ata  
 84  
 Glu Ala Gly Glu Ser Val Ser Phe Gln Leu Gln Ile  
 20 25

<210> 62  
 <211> 28  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 62

Asn Ala Gln Ile Gly Ile Ala Met Leu Val Ser Val Gly Asn Leu Glu  
 1 5 10 15

Glu Ala Gly Glu Ser Val Ser Phe Gln Leu Gln Ile  
 20 25

<210> 63  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(54)

<400> 63  
 aca tta gga cca agt caa gaa gag aca gga gga gta ttt tta tgt cca  
 48  
 Thr Leu Gly Pro Ser Gln Glu Glu Thr Gly Gly Val Phe Leu Cys Pro  
 1 5 10 15

tgg aga  
 54  
 Trp Arg

<210> 64  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 64

Thr Leu Gly Pro Ser Gln Glu Glu Thr Gly Gly Val Phe Leu Cys Pro  
 1 5 10 15

Trp Arg

<210> 65  
 <211> 39  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(39)

<400> 65  
 gca gaa gga gga caa tgt cca agt tta tta ttt gat tta  
 39  
 Ala Glu Gly Gly Gln Cys Pro Ser Leu Leu Phe Asp Leu  
 1 5 10

<210> 66  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

&lt;400&gt; 66

Ala Glu Gly Gly Gln Cys Pro Ser Leu Leu Phe Asp Leu  
 1 5 10

&lt;210&gt; 67

&lt;211&gt; 117

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(117)

&lt;400&gt; 67

gcc atg gtc aca gta ttg gca ttt ctt tgg ctc cca agt cta tat cag  
 48

Ala Met Val Thr Val Leu Ala Phe Leu Trp Leu Pro Ser Leu Tyr Gln

1 5 10 15

aga cca ctg gat caa ttt gtg tta caa agt cat gct tgg ttc aat gtt  
 96

Arg Pro Leu Asp Gln Phe Val Leu Gln Ser His Ala Trp Phe Asn Val

20 25 30

agt agt tta cca tac gcg gta  
 17

Ser Ser Leu Pro Tyr Ala Val

35

1

&lt;210&gt; 68

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence



<220>

<223> Description of Artificial Sequence: Integrin

<400> 68

Ala Met Val Thr Val Leu Ala Phe Leu Trp Leu Pro Ser Leu Tyr Gln  
1 5 10 15

Arg Pro Leu Asp Gln Phe Val Leu Gln Ser His Ala Trp Phe Asn Val  
20 25 30

Ser Ser Leu Pro Tyr Ala Val  
35

<210> 69

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(36)

<400> 69

gga gca cat tat atg aga gca tta agt aat gta gaa  
36

Gly Ala His Tyr Met Arg Ala Leu Ser Asn Val Glu

1 5 10

<210> 70

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 70

Gly Ala His Tyr Met Arg Ala Leu Ser Asn Val Glu  
1 5 10

<210> 71  
<211> 12  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(12)

<400> 71  
gga gca cca tta  
12  
Gly Ala Pro Leu  
1

<210> 72  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 72

Gly Ala Pro Leu  
1

<210> 73  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(39)

<400> 73

gga gat gga aga cat gac tta tta gta gga gca cca tta  
39

Gly Asp Gly Arg His Asp Leu Leu Val Gly Ala Pro Leu

1

5

10

<210> 74

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 74

Gly Asp Gly Arg His Asp Leu Leu Val Gly Ala Pro Leu  
1 5 10

<210> 75

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(33)

<400> 75

aca gat gta aat gga gac gga aga cat gat tta  
33

Thr Asp Val Asn Gly Asp Gly Arg His Asp Leu

1

5

10

<210> 76  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 76

Thr Asp Val Asn Gly Asp Gly Arg His Asp Leu  
 1 5 10

<210> 77  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(36)

<400> 77  
 gga gat gga aga cat gac tta tta gta gga gca cca  
 36  
 Gly Asp Gly Arg His Asp Leu Leu Val Gly Ala Pro  
 1 5 10

<210> 78  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 78

Gly Asp Gly Arg His Asp Leu Leu Val Gly Ala Pro  
1 5 10

<210> 79  
<211> 42  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(42)

<400> 79  
gga gac gga aga cat gat tta tta gta gga gca cca tta tat  
42  
Gly Asp Gly Arg His Asp Leu Leu Val Gly Ala Pro Leu Tyr  
1 5 10

<210> 80  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 80

Gly Asp Gly Arg His Asp Leu Leu Val Gly Ala Pro Leu Tyr  
1 5 10

<210> 81  
<211> 681  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(681)

&lt;400&gt; 81

gaa ttt gac ggt gat ctt aat acg act gag tac gtc gtc gga gca cca  
48

Glu Phe Asp Gly Asp Leu Asn Thr Thr Glu Tyr Val Val Gly Ala Pro

1

5

10

15

act tgg tcg tgg aca tta ggc gca gtc gag ata ctc gac agt tat tat  
96

Thr Trp Ser Trp Thr Leu Gly Ala Val Glu Ile Leu Asp Ser Tyr Tyr

20

25

30

cag agg tta cat aga tta cgt gca gaa cag atg gcg tcc tac ttt ggt  
44

Gln Arg Leu His Arg Leu Arg Ala Glu Gln Met Ala Ser Tyr Phe Gly

35

40

45

cac agc gta gcg gta acg gat gtg aac gga gac ggc cgc cat gac ttg  
92

His Ser Val Ala Val Thr Asp Val Asn Gly Asp Gly Arg His Asp Leu

50

55

60

cta gtt gga gct ccg ctc tac atg gag agt cga gca gat cgc aag ctt  
40

Leu Val Gly Ala Pro Leu Tyr Met Glu Ser Arg Ala Asp Arg Lys Leu

65

70

75

80

gct gaa gtg ggc cga gta tat ctt ttc ctt caa cca cgg ggt ccc cac  
88

Ala Glu Val Gly Arg Val Tyr Leu Phe Leu Gln Pro Arg Gly Pro His

85

90

95

gcc cta ggc gct cct agt tta ttg tta acc gga aca cag ttg tat ggt 3  
36

Ala Leu Gly Ala Pro Ser Leu Leu Leu Thr Gly Thr Gln Leu Tyr Gly

100

105

110

aga ttc gga tct gca ata gcg cca ctc ggg gat ttg gat aga gat ggc 3  
84

Arg Phe Gly Ser Ala Ile Ala Pro Leu Gly Asp Leu Asp Arg Asp Gly

115

120

125

tat aac gat ata gct gtg gcc gcc cct tac gga gga ccc tcc ggc aga 4  
32

Tyr Asn Asp Ile Ala Val Ala Ala Pro Tyr Gly Gly Pro Ser Gly Arg

130

135

140

ggg cag gtt ctg gtt ttc cta ggg caa agt gaa ggg tta agg tca aga 4  
80

Gly Gln Val Leu Val Phe Leu Gly Gln Ser Glu Gly Leu Arg Ser Arg

145

150

155

160

ccg tct caa gtc tta gac tcg cca ttt cca acc gga agt gcg ttt ggg 5  
28

Pro Ser Gln Val Leu Asp Ser Pro Phe Pro Thr Gly Ser Ala Phe Gly

165

170

175

ttc agt ctc cgt ggt gca gtg gac atc gat gac aat ggt tac ccg gat 5  
76

Phe Ser Leu Arg Gly Ala Val Asp Ile Asp Asp Asn Gly Tyr Pro Asp

180

185

190

cta att gtt gga gcc tac ggg gcc aat caa gta gca gta tat ccg gcg 6  
24

Leu Ile Val Gly Ala Tyr Gly Ala Asn Gln Val Ala Val Tyr Arg Ala

195

200

205

cag ccc gta gtt aaa gct tca gtc caa ctg ctg ctg caa gac agc ctg  
72

6

Gln Pro Val Val Lys Ala Ser Val Gln Leu Leu Leu Gln Asp Ser Leu

210

215

220

aac cct gca

6

81

Asn Pro Ala

225

<210> 82

<211> 227

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 82

Glu Phe Asp Gly Asp Leu Asn Thr Thr Glu Tyr Val Val Gly Ala Pro  
1 5 10 15

Thr Trp Ser Trp Thr Leu Gly Ala Val Glu Ile Leu Asp Ser Tyr Tyr  
20 25 30

Gln Arg Leu His Arg Leu Arg Ala Glu Gln Met Ala Ser Tyr Phe Gly  
35 40 45

His Ser Val Ala Val Thr Asp Val Asn Gly Asp Gly Arg His Asp Leu  
50 55 60

Leu Val Gly Ala Pro Leu Tyr Met Glu Ser Arg Ala Asp Arg Lys Leu  
65 70 75 80

Ala Glu Val Gly Arg Val Tyr Leu Phe Leu Gln Pro Arg Gly Pro His



85

90

95

Ala Leu Gly Ala Pro Ser Leu Leu Leu Thr Gly Thr Gln Leu Tyr Gly  
 100 105 110

Arg Phe Gly Ser Ala Ile Ala Pro Leu Gly Asp Leu Asp Arg Asp Gly  
 115 120 125

Tyr Asn Asp Ile Ala Val Ala Ala Pro Tyr Gly Gly Pro Ser Gly Arg  
 130 135 140

Gly Gln Val Leu Val Phe Leu Gly Gln Ser Glu Gly Leu Arg Ser Arg  
 145 150 155 160

Pro Ser Gln Val Leu Asp Ser Pro Phe Pro Thr Gly Ser Ala Phe Gly  
 165 170 175

Phe Ser Leu Arg Gly Ala Val Asp Ile Asp Asp Asn Gly Tyr Pro Asp  
 180 185 190

Leu Ile Val Gly Ala Tyr Gly Ala Asn Gln Val Ala Val Tyr Arg Ala  
 195 200 205

Gln Pro Val Val Lys Ala Ser Val Gln Leu Leu Leu Gln Asp Ser Leu  
 210 215 220

Asn Pro Ala  
 225

<210> 83  
 <211> 60  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(60)

<400> 83

gca gta aca gat gta aat gga gac gga aga cat gat tta tta gta gga  
48

Ala Val Thr Asp Val Asn Gly Asp Gly Arg His Asp Leu Leu Val Gly

1

5

10

15

gca cca tta tat

60

Ala Pro Leu Tyr

20

<210> 84

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 84

Ala Val Thr Asp Val Asn Gly Asp Gly Arg His Asp Leu Leu Val Gly  
1 5 10 15

Ala Pro Leu Tyr  
20

<210> 85

<211> 882

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

&lt;221&gt; CDS

&lt;222&gt; (1)..(882)

&lt;400&gt; 85

ttt tcc tca gtc gtg aca caa gct ggc gag tta gta ttg ggg gct ccc  
48

Phe Ser Ser Val Val Thr Gln Ala Gly Glu Leu Val Leu Gly Ala Pro

1 5 10 15

gga ggc tac tac ttc ctg ggg cta ctc gca cag gca ccc gtg gcg gac  
96

Gly Gly Tyr Tyr Phe Leu Gly Leu Leu Ala Gln Ala Pro Val Ala Asp

20 25 30

ata ttc tcg tct tat aga cct ggg att ttg ttg tgg cac gtc tcc tct  
44

Ile Phe Ser Ser Tyr Arg Pro Gly Ile Leu Leu Trp His Val Ser Ser

35 40 45

cag tct tta agt ttc gat agt agc aat cca gaa tat ttt gac gga tac  
92

Gln Ser Leu Ser Phe Asp Ser Ser Asn Pro Glu Tyr Phe Asp Gly Tyr

50 55 60

tgg ggg tat tct gtg gca gtc ggt gag ttc gat ggt gat ctg aat act  
40

Trp Gly Tyr Ser Val Ala Val Gly Glu Phe Asp Gly Asp Leu Asn Thr

65 70 75 80

aca gaa tat gtg gta ggg gct cct aca tgg agt tgg act tta ggc gcg  
88

Thr Glu Tyr Val Val Gly Ala Pro Thr Trp Ser Trp Thr Leu Gly Ala

85 90 95

gtc gag ata tta gat agc tac tac caa cgc tta cac aga ttg cgt gct  
36

1

1

2

2

3

## 130588.00025.ST25.txt

Val Glu Ile Leu Asp Ser Tyr Tyr Gln Arg Leu His Arg Leu Arg Ala

100

105

110

gaa caa atg gcc tcc tac ttt ggt cat tca gtc gcc gtt acc gat gtg

84

3

Glu Gln Met Ala Ser Tyr Phe Gly His Ser Val Ala Val Thr Asp Val

115

120

125

aat ggt gat gga cgg cat gac ctc cta gtt gga gct cca ctt tac atg

32

4

Asn Gly Asp Gly Arg His Asp Leu Leu Val Gly Ala Pro Leu Tyr Met

130

135

140

gag agc aga gcg gac cga aag tta gct gaa gta gga aga gtt tat ttg

80

4

Glu Ser Arg Ala Asp Arg Lys Leu Ala Glu Val Gly Arg Val Tyr Leu

145

150

155

160

ttc cta caa ccg agg ggc ccg cat gcg ctt ggc gca cct tcc tta ctt

28

5

Phe Leu Gln Pro Arg Gly Pro His Ala Leu Gly Ala Pro Ser Leu Leu

165

170

175

ctg acc ggt acg caa ctt tac ggg cga ttt ggg tcg gcc att gcg cca

76

5

Leu Thr Gly Thr Gln Leu Tyr Gly Arg Phe Gly Ser Ala Ile Ala Pro

180

185

190

ctg ggg gac ctt gat cgc gac gga tat aac gac atc gca gtt gcc gcg

24

6

Leu Gly Asp Leu Asp Arg Asp Gly Tyr Asn Asp Ile Ala Val Ala Ala

195

200

205

cct tat gga ggc cca tcg ggt cgg gga cag gtt cta gtg ttc ctc ggt

6

72  
Pro Tyr Gly Gly Pro Ser Gly Arg Gly Gln Val Leu Val Phe Leu Gly

210

215

220

caa agt gaa ggc ctc cgt agt aga ccg agc cag gta ctg gac agt ccg  
20  
Gln Ser Glu Gly Leu Arg Ser Arg Pro Ser Gln Val Leu Asp Ser Pro

225

230

235

240

ttt ccc acg ggc tcg gct ttt ggt ttt tca tta aga ggt gcg gta gac  
68  
Phe Pro Thr Gly Ser Ala Phe Gly Phe Ser Leu Arg Gly Ala Val Asp

245

250

255

atc gat gat aac gga tac ccc gat ctc ata gta ggg gcc tat ggc gcc  
16  
Ile Asp Asp Asn Gly Tyr Pro Asp Leu Ile Val Gly Ala Tyr Gly Ala

260

265

270

aac cag gtc gca gtt tat agg gcc cag cca gta gtg aaa gca tca gtc  
64  
Asn Gln Val Ala Val Tyr Arg Ala Gln Pro Val Val Lys Ala Ser Val

275

280

285

caa tta cta gtt cag gac  
82  
Gln Leu Leu Val Gln Asp

290

<210> 86  
<211> 294  
<212> PRT  
<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 86

Phe Ser Ser Val Val Thr Gln Ala Gly Glu Leu Val Leu Gly Ala Pro  
 1 5 10 15

Gly Gly Tyr Tyr Phe Leu Gly Leu Leu Ala Gln Ala Pro Val Ala Asp  
 20 25 30

Ile Phe Ser Ser Tyr Arg Pro Gly Ile Leu Leu Trp His Val Ser Ser  
 35 40 45

Gln Ser Leu Ser Phe Asp Ser Ser Asn Pro Glu Tyr Phe Asp Gly Tyr  
 50 55 60

Trp Gly Tyr Ser Val Ala Val Gly Glu Phe Asp Gly Asp Leu Asn Thr  
 65 70 75 80

Thr Glu Tyr Val Val Gly Ala Pro Thr Trp Ser Trp Thr Leu Gly Ala  
 85 90 95

Val Glu Ile Leu Asp Ser Tyr Tyr Gln Arg Leu His Arg Leu Arg Ala  
 100 105 110

Glu Gln Met Ala Ser Tyr Phe Gly His Ser Val Ala Val Thr Asp Val  
 115 120 125

Asn Gly Asp Gly Arg His Asp Leu Leu Val Gly Ala Pro Leu Tyr Met  
 130 135 140

Glu Ser Arg Ala Asp Arg Lys Leu Ala Glu Val Gly Arg Val Tyr Leu  
 145 150 155 160

Phe Leu Gln Pro Arg Gly Pro His Ala Leu Gly Ala Pro Ser Leu Leu  
 165 170 175

130588.00025.ST25.txt

Leu Thr Gly Thr Gln Leu Tyr Gly Arg Phe Gly Ser Ala Ile Ala Pro  
180 185 190

Leu Gly Asp Leu Asp Arg Asp Gly Tyr Asn Asp Ile Ala Val Ala Ala  
195 200 205

Pro Tyr Gly Gly Pro Ser Gly Arg Gly Gln Val Leu Val Phe Leu Gly  
210 215 220

Gln Ser Glu Gly Leu Arg Ser Arg Pro Ser Gln Val Leu Asp Ser Pro  
225 230 235 240

Phe Pro Thr Gly Ser Ala Phe Gly Phe Ser Leu Arg Gly Ala Val Asp  
245 250 255

Ile Asp Asp Asn Gly Tyr Pro Asp Leu Ile Val Gly Ala Tyr Gly Ala  
260 265 270

Asn Gln Val Ala Val Tyr Arg Ala Gln Pro Val Val Lys Ala Ser Val  
275 280 285

Gln Leu Leu Val Gln Asp  
290

<210> 87  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(21)

<400> 87  
gta gaa aat gat ttt agt tgg  
21

Val Glu Asn Asp Phe Ser Trp

1

5

<210> 88  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 88

Val Glu Asn Asp Phe Ser Trp

1

5

<210> 89  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(15)

<400> 89  
gga gaa tta gta tta  
15  
Gly Glu Leu Val Leu

1

5

<210> 90  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>



<223> Description of Artificial Sequence: Integrin

<400> 90

Gly Glu Leu Val Leu

1 5

<210> 91

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(39)

<400> 91

gat tta tat tat tta atg gac tta agt tac agt atg aaa  
39

Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys

1 5 10

<210> 92

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 92

Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys

1 5 10

<210> 93

<211> 16

<212> PRT

<213> Artificial

<220>  
<223> Integrin

<220>  
<221> PEPTIDE  
<222> (1)..(16)  
<223> Integrin

<220>  
<221> misc\_feature  
<222> (2)..(6)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (8)..(8)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (10)..(10)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (12)..(12)  
<223> Xaa can be any naturally occurring amino acid

<400> 93

Asp Xaa Xaa Xaa Xaa Xaa Asp Xaa Ser Xaa Ser Xaa Lys Asp Asp Leu  
1 5 10 15

<210> 94  
<211> 324  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(324)

&lt;400&gt; 94

tac tgc cga aaa gaa aac tca tcg gaa ata tgt agt aac aat ggg gag

48

Tyr Cys Arg Lys Glu Asn Ser Ser Glu Ile Cys Ser Asn Asn Gly Glu

1

5

10

15

tgc gtc tgc ggc caa tgt gta tgc cgg aaa cgt gac aac aca aac gaa

96

Cys Val Cys Gly Gln Cys Val Cys Arg Lys Arg Asp Asn Thr Asn Glu

20

25

30

atc tat agt gga aag ttt tgt gag tgt gat aat ttc aac tgt gat cgc

44

Ile Tyr Ser Gly Lys Phe Cys Glu Cys Asp Asn Phe Asn Cys Asp Arg

35

40

45

agc aat ggc tta ata tgc ggt ggc aat gga gtt tgc aag tgt agg gtg

92

Ser Asn Gly Leu Ile Cys Gly Gly Asn Gly Val Cys Lys Cys Arg Val

50

55

60

tgt gaa tgc aat cca aat tat aca ggg agt gca tgc gat tgc tct tta

40

Cys Glu Cys Asn Pro Asn Tyr Thr Gly Ser Ala Cys Asp Cys Ser Leu

65

70

75

80

gac act agt acg tgc gag gca tcc aac ggg cag ata tgt aat gga aga

88

Asp Thr Ser Thr Cys Glu Ala Ser Asn Gly Gln Ile Cys Asn Gly Arg

85

90

95

ggc att tgt gag tgt ggc gta tgc aaa tgt acc gac

24

Gly Ile Cys Glu Cys Gly Val Cys Lys Cys Thr Asp

3

100

105

<210> 95  
 <211> 108  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 95

Tyr Cys Arg Lys Glu Asn Ser Ser Glu Ile Cys Ser Asn Asn Gly Glu  
 1 5 10 15

Cys Val Cys Gly Gln Cys Val Cys Arg Lys Arg Asp Asn Thr Asn Glu  
 20 25 30

Ile Tyr Ser Gly Lys Phe Cys Glu Cys Asp Asn Phe Asn Cys Asp Arg  
 35 40 45

Ser Asn Gly Leu Ile Cys Gly Gly Asn Gly Val Cys Lys Cys Arg Val  
 50 55 60

Cys Glu Cys Asn Pro Asn Tyr Thr Gly Ser Ala Cys Asp Cys Ser Leu  
 65 70 75 80

Asp Thr Ser Thr Cys Glu Ala Ser Asn Gly Gln Ile Cys Asn Gly Arg  
 85 90 95

Gly Ile Cys Glu Cys Gly Val Cys Lys Cys Thr Asp  
 100 105

<210> 96  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(21)

<400> 96

tgt aca agt gaa caa aat tgc

21

Cys Thr Ser Glu Gln Asn Cys

1

5

<210> 97

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 97

Cys Thr Ser Glu Gln Asn Cys

1

5

<210> 98

<211> 708

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(708)

<400> 98

tta cga tta cgc tcg ggc gaa ccc cag aca ttt acg ctt aag ttc aaa

48

Leu Arg Leu Arg Ser Gly Glu Pro Gln Thr Phe Thr Leu Lys Phe Lys

1

5

10

15

cgg gct gag gat tat cct atc gac ctt tac tat ctt atg gat ctc tca  
96

Arg Ala Glu Asp Tyr Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser

20

25

30

tat agt atg aaa gat gat ctg gag aat gtt aag tcc tta ggg acc gat  
44

Tyr Ser Met Lys Asp Asp Leu Glu Asn Val Lys Ser Leu Gly Thr Asp

35

40

45

tta atg aac gag atg aga aga atc act tca gac ttc aga att gga ttt  
92

Leu Met Asn Glu Met Arg Arg Ile Thr Ser Asp Phe Arg Ile Gly Phe

50

55

60

ggc tct ttt gtc gaa aaa acc gta atg cca tac ata agc aca acc cca  
40

Gly Ser Phe Val Glu Lys Thr Val Met Pro Tyr Ile Ser Thr Thr Pro

65

70

75

80

gca aag ctg agg aat ccg tgt aca tcg gag caa aac tgc act act ccc  
88

Ala Lys Leu Arg Asn Pro Cys Thr Ser Glu Gln Asn Cys Thr Thr Pro

85

90

95

ttc agt tat aag aat gtt ctc agt ctg acg aac aaa ggg gaa gta ttt  
36

Phe Ser Tyr Lys Asn Val Leu Ser Leu Thr Asn Lys Gly Glu Val Phe

100

105

110

aac gag cta gtg gga aaa cag aga att agc ggt aac ctc gac tct cca  
84

Asn Glu Leu Val Gly Lys Gln Arg Ile Ser Gly Asn Leu Asp Ser Pro

115	120	125	
gaa ggt ggt ttt gat gca att atg caa gtt gca gtg tgt gga tct cta			4
32 Glu Gly Gly Phe Asp Ala Ile Met Gln Val Ala Val Cys Gly Ser Leu			
130	135	140	
ata ggg tgg cgt aat gta act aga cta ttg gtg ttt tcc acc gac gcc			4
80 Ile Gly Trp Arg Asn Val Thr Arg Leu Leu Val Phe Ser Thr Asp Ala			
145	150	155	160
ggc ttc cac ttc gct gga gac ggc aag cta ggg gga atc gta ttg cct			5
28 Gly Phe His Phe Ala Gly Asp Gly Lys Leu Gly Gly Ile Val Leu Pro			
165	170	175	
aac gat ggt cag tgc cat ttg gaa aat aat atg tat acg atg tcg cac			5
76 Asn Asp Gly Gln Cys His Leu Glu Asn Asn Met Tyr Thr Met Ser His			
180	185	190	
tac tac gac tac cca tcc ata gcc cat tta gtc caa aag ctg agc gaa			6
24 Tyr Tyr Asp Tyr Pro Ser Ile Ala His Leu Val Gln Lys Leu Ser Glu			
195	200	205	
aac aat att caa aca ata ttt gcg gta acg gaa gag ttc cag cca gtc			6
72 Asn Asn Ile Gln Thr Ile Phe Ala Val Thr Glu Glu Phe Gln Pro Val			
210	215	220	
tat aag gag ctt aaa aat ctc atc ccg aaa tca gcg			7
08			

Tyr Lys Glu Leu Lys Asn Leu Ile Pro Lys Ser Ala

225

230

235

&lt;210&gt; 99

&lt;211&gt; 236

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 99

Leu Arg Leu Arg Ser Gly Glu Pro Gln Thr Phe Thr Leu Lys Phe Lys  
 1 5 10 15

Arg Ala Glu Asp Tyr Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser  
 20 25 30

Tyr Ser Met Lys Asp Asp Leu Glu Asn Val Lys Ser Leu Gly Thr Asp  
 35 40 45

Leu Met Asn Glu Met Arg Arg Ile Thr Ser Asp Phe Arg Ile Gly Phe  
 50 55 60

Gly Ser Phe Val Glu Lys Thr Val Met Pro Tyr Ile Ser Thr Thr Pro  
 65 70 75 80

Ala Lys Leu Arg Asn Pro Cys Thr Ser Glu Gln Asn Cys Thr Thr Pro  
 85 90 95

Phe Ser Tyr Lys Asn Val Leu Ser Leu Thr Asn Lys Gly Glu Val Phe  
 100 105 110

Asn Glu Leu Val Gly Lys Gln Arg Ile Ser Gly Asn Leu Asp Ser Pro  
 115 120 125



130588.00025.ST25.txt

Glu Gly Gly Phe Asp Ala Ile Met Gln Val Ala Val Cys Gly Ser Leu  
130 135 140

Ile Gly Trp Arg Asn Val Thr Arg Leu Leu Val Phe Ser Thr Asp Ala  
145 150 155 160

Gly Phe His Phe Ala Gly Asp Gly Lys Leu Gly Gly Ile Val Leu Pro  
165 170 175

Asn Asp Gly Gln Cys His Leu Glu Asn Asn Met Tyr Thr Met Ser His  
180 185 190

Tyr Tyr Asp Tyr Pro Ser Ile Ala His Leu Val Gln Lys Leu Ser Glu  
195 200 205

Asn Asn Ile Gln Thr Ile Phe Ala Val Thr Glu Glu Phe Gln Pro Val  
210 215 220

Tyr Lys Glu Leu Lys Asn Leu Ile Pro Lys Ser Ala  
225 230 235

<210> 100

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(36)

<400> 100

aac aag gga gaa gta ttt aat gag tta gta gga aaa

36

Asn Lys Gly Glu Val Phe Asn Glu Leu Val Gly Lys

1

5

10

<210> 101  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 101

Asn Lys Gly Glu Val Phe Asn Glu Leu Val Gly Lys  
 1 5 10

<210> 102  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(15)

<400> 102  
 aca gca gaa aaa tta  
 15  
 Thr Ala Glu Lys Leu  
 1 5

<210> 103  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 103

Thr Ala Glu Lys Leu  
1 5

<210> 104  
<211> 78  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(78)

<400> 104  
gat tac cca ata gac tta tac tat tta atg gac tta agt tat agt atg  
48  
Asp Tyr Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met  
1 5 10 15

aag gat gat tta gaa gta aaa agt tta gga  
78  
Lys Asp Asp Leu Glu Val Lys Ser Leu Gly  
20 25

<210> 105  
<211> 26  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 105

Asp Tyr Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met  
1 5 10 15

Lys Asp Asp Leu Glu Val Lys Ser Leu Gly

20.

25

<210> 106  
 <211> 60  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(60)

<400> 106  
 aat gta aag agt tta gga aca gca tta atg aga gag atg gaa aaa ata  
 48  
 Asn Val Lys Ser Leu Gly Thr Ala Leu Met Arg Glu Met Glu Lys Ile  
 1 5 10 15

aca agt gat ttt  
 60  
 Thr Ser Asp Phe  
 20

<210> 107  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 107  
 Asn Val Lys Ser Leu Gly Thr Ala Leu Met Arg Glu Met Glu Lys Ile  
 1 5 10 15

Thr Ser Asp Phe  
 20

<210> 108  
 <211> 744  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(744)

<400> 108  
 gga caa aaa cag tta agt ccg cag aag gtc act cta tac ttg cgt ccc  
 48  
 Gly Gln Lys Gln Leu Ser Pro Gln Lys Val Thr Leu Tyr Leu Arg Pro  
 1 5 10 15

ggg caa gca gcc gcg ttc aac gta acg ttt cgt cgc gca aaa gga tac  
 96  
 Gly Gln Ala Ala Ala Phe Asn Val Thr Phe Arg Arg Ala Lys Gly Tyr  
 20 25 30

cca ata gac ctt tat tat tta atg gat tta tcc tac tca atg ctc gat 1  
 44  
 Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Leu Asp  
 35 40 45

gat tta aga aac gtt aag aag tta ggc ggg gat ctg ctc aga gct ctc 1  
 92  
 Asp Leu Arg Asn Val Lys Lys Leu Gly Gly Asp Leu Leu Arg Ala Leu  
 50 55 60

aat gag ata act gaa agt ggt cgg ata ggt ttc ggt tcg ttc gtt gat 2  
 40  
 Asn Glu Ile Thr Glu Ser Gly Arg Ile Gly Phe Gly Ser Phe Val Asp

65	70	75	80	
aag acg gtg ctg ccc ttt gta aat aca cac cca gac aaa ctg agg aac				2
88				
Lys Thr Val Leu Pro Phe Val Asn Thr His Pro Asp Lys Leu Arg Asn				
	85	90	95	
ccc tgc cca aat aag gag aaa gaa tgc cag ccg cct ttc gct ttt cgc				3
36				
Pro Cys Pro Asn Lys Glu Lys Glu Cys Gln Pro Pro Phe Ala Phe Arg				
	100	105	110	
cat gtc cta aaa tta aca aat aat agc aat caa ttt cag acc gag gta				3
84				
His Val Leu Lys Leu Thr Asn Asn Ser Asn Gln Phe Gln Thr Glu Val				
	115	120	125	
gga aaa caa ctt att agt gga aac tta gac gcc cca gag ggc ggc tta				4
32				
Gly Lys Gln Leu Ile Ser Gly Asn Leu Asp Ala Pro Glu Gly Gly Leu				
	130	135	140	
gac gca atg atg caa gta gca gcc tgt ccg gag gaa att ggt tgg cgg				4
80				
Asp Ala Met Met Gln Val Ala Ala Cys Pro Glu Glu Ile Gly Trp Arg				
145	150	155	160	
aat gtc acc agg ttg ttg gta ttt gcc act gac gat gga ttc cat ttt				5
28				
Asn Val Thr Arg Leu Leu Val Phe Ala Thr Asp Asp Gly Phe His Phe				
	165	170	175	
gct gga gat ggc aag cta ggg gcg att ctt acc cct aac gac ggg cga				5
76				
Ala Gly Asp Gly Lys Leu Gly Ala Ile Leu Thr Pro Asn Asp Gly Arg				

180

185

190

tgt cac ctc gaa gac aac cta tat aag aga agt aat gaa ttc gat tat 6  
24

Cys His Leu Glu Asp Asn Leu Tyr Lys Arg Ser Asn Glu Phe Asp Tyr

195

200

205

cca tct gtg gga caa ctg gcg cat aag ttg gct gag aac aac ata cag 6  
72

Pro Ser Val Gly Gln Leu Ala His Lys Leu Ala Glu Asn Asn Ile Gln

210

215

220

cca atc ttt gca gtt aca agt cga atg gtg aaa aca tac gaa aaa ctt 7  
20

Pro Ile Phe Ala Val Thr Ser Arg Met Val Lys Thr Tyr Glu Lys Leu

225

230

235

240

acg gaa atc atc cct aaa agt gcg 7  
44

Thr Glu Ile Ile Pro Lys Ser Ala

245

&lt;210&gt; 109

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 109

Gly Gln Lys Gln Leu Ser Pro Gln Lys Val Thr Leu Tyr Leu Arg Pro  
1 5 10 15

Gly Gln Ala Ala Ala Phe Asn Val Thr Phe Arg Arg Ala Lys Gly Tyr

Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Leu Asp  
 35 40 45

Asp Leu Arg Asn Val Lys Lys Leu Gly Gly Asp Leu Leu Arg Ala Leu  
 50 55 60

Asn Glu Ile Thr Glu Ser Gly Arg Ile Gly Phe Gly Ser Phe Val Asp  
 65 70 75 80

Lys Thr Val Leu Pro Phe Val Asn Thr His Pro Asp Lys Leu Arg Asn  
 85 90 95

Pro Cys Pro Asn Lys Glu Lys Glu Cys Gln Pro Pro Phe Ala Phe Arg  
 100 105 110

His Val Leu Lys Leu Thr Asn Asn Ser Asn Gln Phe Gln Thr Glu Val  
 115 120 125

Gly Lys Gln Leu Ile Ser Gly Asn Leu Asp Ala Pro Glu Gly Gly Leu  
 130 135 140

Asp Ala Met Met Gln Val Ala Ala Cys Pro Glu Glu Ile Gly Trp Arg  
 145 150 155 160

Asn Val Thr Arg Leu Leu Val Phe Ala Thr Asp Asp Gly Phe His Phe  
 165 170 175

Ala Gly Asp Gly Lys Leu Gly Ala Ile Leu Thr Pro Asn Asp Gly Arg  
 180 185 190

Cys His Leu Glu Asp Asn Leu Tyr Lys Arg Ser Asn Glu Phe Asp Tyr  
 195 200 205

Pro Ser Val Gly Gln Leu Ala His Lys Leu Ala Glu Asn Asn Ile Gln



210

215

220

Pro Ile Phe Ala Val Thr Ser Arg Met Val Lys Thr Tyr Glu Lys Leu  
 225 230 235 240

Thr Glu Ile Ile Pro Lys Ser Ala  
 245

&lt;210&gt; 110

&lt;211&gt; 783

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(783)

&lt;400&gt; 110

tac cca ata gat ctc tac tac ctg atg gat cta tcc tat tca atg ctg  
 48

Tyr Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Leu

1

5

10

15

gac gat cta cgt aac gtt aag aaa ctt gga ggt gat tta cta aga gct  
 96

Asp Asp Leu Arg Asn Val Lys Lys Leu Gly Gly Asp Leu Leu Arg Ala

20

25

30

ctt aac gaa atc acg gag agt ggg cga atc ggc ttc ggc tca ttc gtc  
 44

Leu Asn Glu Ile Thr Glu Ser Gly Arg Ile Gly Phe Gly Ser Phe Val

35

40

45

gac aag aca gta ttg ccc ttc gta aac acg cac cca gac aag ctt aga  
 92

1

## 130588.00025.ST25.txt

Asp Lys Thr Val Leu Pro Phe Val Asn Thr His Pro Asp Lys Leu Arg

50

55

60

aac ccc tgc cca aat aaa gag aaa gag tgt caa ccc ccg ttt gcc ttt

2

40  
Asn Pro Cys Pro Asn Lys Glu Lys Glu Cys Gln Pro Pro Phe Ala Phe

65

70

75

80

aga cat gtc tta aag ctc acg aat aac agc aat cag ttt cag aca gaa

2

88  
Arg His Val Leu Lys Leu Thr Asn Asn Ser Asn Gln Phe Gln Thr Glu

85

90

95

gtt gga aaa caa ctg ata tcg ggt aat cta gac gca cca gag ggg gga

3

36  
Val Gly Lys Gln Leu Ile Ser Gly Asn Leu Asp Ala Pro Glu Gly Gly

100

105

110

ctt gat gcc atg atg cag gtg gca gcc tgc ccg gag gaa att ggg tgg

3

84  
Leu Asp Ala Met Met Gln Val Ala Ala Cys Pro Glu Glu Ile Gly Trp

115

120

125

agg aat gtc aca aga ctg cta gtt ttc gca act gat gac ggg ttt cat

4

32  
Arg Asn Val Thr Arg Leu Leu Val Phe Ala Thr Asp Asp Gly Phe His

130

135

140

ttt gct gga gat ggt aaa ctg ggc gca att ttg act cct aac gat gga

4

80  
Phe Ala Gly Asp Gly Lys Leu Gly Ala Ile Leu Thr Pro Asn Asp Gly

145

150

155

160

cgg tgt cat ttg gaa gac aac ctc tat aaa aga agc aat gaa ttc gac

5

28

Arg Cys His Leu Glu Asp Asn Leu Tyr Lys Arg Ser Asn Glu Phe Asp

165

170

175

tat cct agt gta ggt caa tta gcg cac aag tta gca gaa aac aat ata 5  
76

Tyr Pro Ser Val Gly Gln Leu Ala His Lys Leu Ala Glu Asn Asn Ile

180

185

190

caa ccg ata ttt gcg gtt acc agt cgc atg gtg aaa aca tac gaa aag 6  
24

Gln Pro Ile Phe Ala Val Thr Ser Arg Met Val Lys Thr Tyr Glu Lys

195

200

205

tta acc gag ata att cca aaa tct gct gtg ggc gag ctc tcc gaa gat 6  
72

Leu Thr Glu Ile Ile Pro Lys Ser Ala Val Gly Glu Leu Ser Glu Asp

210

215

220

agt agt aat gtc gta cac ttg atc aag aat gca tat aac aaa tta tct 7  
20

Ser Ser Asn Val Val His Leu Ile Lys Asn Ala Tyr Asn Lys Leu Ser

225

230

235

240

agt aga gta ttt ttg gac cat aat gcg ctt cct gat act ctc aag gtg 7  
68

Ser Arg Val Phe Leu Asp His Asn Ala Leu Pro Asp Thr Leu Lys Val

245

250

255

acc tat gac tcg ttc 7  
83

Thr Tyr Asp Ser Phe

260

&lt;210&gt; 111

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 111

Tyr Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Leu  
 1 5 10 15

Asp Asp Leu Arg Asn Val Lys Lys Leu Gly Gly Asp Leu Leu Arg Ala  
 20 25 30

Leu Asn Glu Ile Thr Glu Ser Gly Arg Ile Gly Phe Gly Ser Phe Val  
 35 40 45

Asp Lys Thr Val Leu Pro Phe Val Asn Thr His Pro Asp Lys Leu Arg  
 50 55 60

Asn Pro Cys Pro Asn Lys Glu Lys Glu Cys Gln Pro Pro Phe Ala Phe  
 65 70 75 80

Arg His Val Leu Lys Leu Thr Asn Asn Ser Asn Gln Phe Gln Thr Glu  
 85 90 95

Val Gly Lys Gln Leu Ile Ser Gly Asn Leu Asp Ala Pro Glu Gly Gly  
 100 105 110

Leu Asp Ala Met Met Gln Val Ala Ala Cys Pro Glu Glu Ile Gly Trp  
 115 120 125

Arg Asn Val Thr Arg Leu Leu Val Phe Ala Thr Asp Asp Gly Phe His  
 130 135 140

Phe Ala Gly Asp Gly Lys Leu Gly Ala Ile Leu Thr Pro Asn Asp Gly



1

5

<210> 113  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 113

Arg Asn Val Lys Lys  
1 5

<210> 114  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(15)

<400> 114  
caa cca cca ttt gca  
15  
Gln Pro Pro Phe Ala

1

5

<210> 115  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 115

Gln Pro Pro Phe Ala  
1 5

<210> 116

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(18)

<400> 116

tta ata agt gga aat tta  
18

Leu Ile Ser Gly Asn Leu

1 5

<210> 117

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 117

Leu Ile Ser Gly Asn Leu  
1 5

<210> 118

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(15)

<400> 118

gga caa tta gca cat

15

Gly Gln Leu Ala His

1

5

<210> 119

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 119

Gly Gln Leu Ala His

1

5

<210> 120

<211> 267

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(267)

<400> 120

gag ctg tca gaa gat tct agt aat gtc gtc cat tta atc aaa aac gcc

48

Glu Leu Ser Glu Asp Ser Ser Asn Val Val His Leu Ile Lys Asn Ala



Tyr Asn Lys Leu Ser Ser Arg Val Phe Leu Asp His Asn Ala Leu Pro

20                      25                      30

Asp Thr Leu Lys Val Thr Tyr Asp Ser Phe Cys Ser Asn Gly Val Thr

35                      40                      45

His Arg Asn Gln Pro Arg Gly Asp Cys Asp Gly Val Gln Ile Asn Val

50                      55                      60

Pro Ile Thr Phe Gln Val Lys Val Thr Ala Thr Glu Cys Ile Gln Glu

65                          70                          75                          80

Gln Ser Phe Val Ile Arg Ala Leu Gly

85

<213> Artificial Sequence

<223> Description of Artificial Sequence: Integrin

&lt;400&gt; 121

Glu Leu Ser Glu Asp Ser Ser Asn Val Val His Leu Ile Lys Asn Ala  
 1 5 10 15

Tyr Asn Lys Leu Ser Ser Arg Val Phe Leu Asp His Asn Ala Leu Pro  
 20 25 30

Asp Thr Leu Lys Val Thr Tyr Asp Ser Phe Cys Ser Asn Gly Val Thr  
 35 40 45

His Arg Asn Gln Pro Arg Gly Asp Cys Asp Gly Val Gln Ile Asn Val  
 50 55 60

Pro Ile Thr Phe Gln Val Lys Val Thr Ala Thr Glu Cys Ile Gln Glu  
 65 70 75 80

Gln Ser Phe Val Ile Arg Ala Leu Gly  
 85

&lt;210&gt; 122

&lt;211&gt; 168

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(168)

&lt;400&gt; 122

ggt ttc acc gac att gta aca gta cag gta tta cca caa tgc gaa tgc  
 48

Gly Phe Thr Asp Ile Val Thr Val Gln Val Leu Pro Gln Cys Glu Cys

1 5 10 15

aga tgt aga gat caa agt aga gac aga agt tta tgc cat gga aag ggc

96  
Arg Cys Arg Asp Gln Ser Arg Asp Arg Ser Leu Cys His Gly Lys Gly

20

25

30

ttt tta gaa tgt gga atc tgt aga tgc gat acg gga tat ata gga aaa 1  
44

Phe Leu Glu Cys Gly Ile Cys Arg Cys Asp Thr Gly Tyr Ile Gly Lys

35

40

45

aat tgt gag tgt cag act caa ggg 1

68

Asn Cys Glu Cys Gln Thr Gln Gly

50

55

<210> 123

<211> 56

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 123

Gly Phe Thr Asp Ile Val Thr Val Gln Val Leu Pro Gln Cys Glu Cys  
1 5 10 15

Arg Cys Arg Asp Gln Ser Arg Asp Arg Ser Leu Cys His Gly Lys Gly  
20 25 30

Phe Leu Glu Cys Gly Ile Cys Arg Cys Asp Thr Gly Tyr Ile Gly Lys  
35 40 45

Asn Cys Glu Cys Gln Thr Gln Gly  
50 55

<210> 124

<211> 45  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(45)

<400> 124  
 tgt aat gca ttt aag ata tta gta gta ata aca gat gga gaa aaa  
 45  
 Cys Asn Ala Phe Lys Ile Leu Val Val Ile Thr Asp Gly Glu Lys  
 1 5 10 15

<210> 125  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 125  
 Cys Asn Ala Phe Lys Ile Leu Val Val Ile Thr Asp Gly Glu Lys  
 1 5 10 15

<210> 126  
 <211> 60  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(60)

<400> 126

aca gga ata aga aag gta gta aga gaa tta ttt aat ata aca aac gga  
48

Thr Gly Ile Arg Lys Val Val Arg Glu Leu Phe Asn Ile Thr Asn Gly

1 5 10 15

gca aga aaa aat

60

Ala Arg Lys Asn

20

<210> 127

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 127

Thr Gly Ile Arg Lys Val Val Arg Glu Leu Phe Asn Ile Thr Asn Gly

1 5 10 15

Ala Arg Lys Asn

20

<210> 128

<211> 75

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(75)

<400> 128

130588.00025.ST25.txt

gat tta agt tat agt ctc gac gat ctg aga aat gta aag aaa ctt gga  
 48  
 Asp Leu Ser Tyr Ser Leu Asp Asp Leu Arg Asn Val Lys Lys Leu Gly  
 1 5 10 15

gga gac cta tta aga gca ttg aac gaa  
 75  
 Gly Asp Leu Leu Arg Ala Leu Asn Glu  
 20 25

<210> 129  
 <211> 25  
 <212> PRT  
 <213> Artificial Sequence  
 <220>  
 <223> Description of Artificial Sequence: Integrin  
 <400> 129

Asp Leu Ser Tyr Ser Leu Asp Asp Leu Arg Asn Val Lys Lys Leu Gly  
 1 5 10 15  
 Gly Asp Leu Leu Arg Ala Leu Asn Glu  
 20 25

<210> 130  
 <211> 189  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(189)

<400> 130  
 gac tat ccc gta gac ata tac tac ctt atg gat tta agt tac tcc atg

48  
Asp Tyr Pro Val Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met

1 5 10 15

aag gac gat ctc tgg tca att cag aac ttg gga aca aaa cta gca aca  
96

Lys Asp Asp Leu Trp Ser Ile Gln Asn Leu Gly Thr Lys Leu Ala Thr

20 25 30

caa atg aga aag ctg aca tcg aat tta aga ata gga ttt gga gca ttc  
44

Gln Met Arg Lys Leu Thr Ser Asn Leu Arg Ile Gly Phe Gly Ala Phe

35 40 45

gta gat aaa cca gta agc cct tat atg tat atc tct cca ccg gaa  
89

Val Asp Lys Pro Val Ser Pro Tyr Met Tyr Ile Ser Pro Pro Glu

50 55 60

<210> 131

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 131

Asp Tyr Pro Val Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met  
1 5 10 15

Lys Asp Asp Leu Trp Ser Ile Gln Asn Leu Gly Thr Lys Leu Ala Thr  
20 25 30

Gln Met Arg Lys Leu Thr Ser Asn Leu Arg Ile Gly Phe Gly Ala Phe  
35 40 45

Val Asp Lys Pro Val Ser Pro Tyr Met Tyr Ile Ser Pro Pro Glu  
50 55 60

<210> 132  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1) .. (45)

<400> 132  
gac gca cca gaa gga gga ttt gat gca ata atg caa gca aca gta  
45  
Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val  
1 5 10 15

<210> 133  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 133  
Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val  
1 5 10 15

<210> 134  
<211> 363  
<212> DNA  
<213> Artificial Sequence

<220>



<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(363)

<400> 134

ttt tcc ata cag gtt cga cag gta gag gat tat cca gta gac atc tat  
48

Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr Pro Val Asp Ile Tyr

1 5 10 15

tac tta atg gac tta agc tat agt atg aag gac gat ctc tgg agt ata  
96

Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys Asp Asp Leu Trp Ser Ile

20 25 30

caa aat tta ggt acc aag ttg gcc acc caa atg cgt aaa tta act tca  
44

Gln Asn Leu Gly Thr Lys Leu Ala Thr Gln Met Arg Lys Leu Thr Ser

35 40 45

aat tta cgg ata gga ttc ggg gca ttt gtg gat aaa ccc gta tcg ccg  
92

Asn Leu Arg Ile Gly Phe Gly Ala Phe Val Asp Lys Pro Val Ser Pro

50 55 60

tac atg tat att agt cca cct gag gcg ctt gaa aac ccc tgc tac gac  
40

Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu Asn Pro Cys Tyr Asp

65 70 75 80

atg aaa aca acg tgt ctg cct atg ttt ggc tac aag cat gtc cta aca  
88

Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr Lys His Val Leu Thr

85 90 95

tta acg gat caa gtc act agg ttc aac gag gaa gtt aaa aag cag agt 3  
36

Leu Thr Asp Gln Val Thr Arg Phe Asn Glu Glu Val Lys Lys Gln Ser

100

105

110

gtg tct cgc aat aga gat gct ccg gaa 3  
63

Val Ser Arg Asn Arg Asp Ala Pro Glu

115

120

<210> 135

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 135

Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr Pro Val Asp Ile Tyr  
1 5 10 15

Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys Asp Asp Leu Trp Ser Ile  
20 25 30

Gln Asn Leu Gly Thr Lys Leu Ala Thr Gln Met Arg Lys Leu Thr Ser  
35 40 45

Asn Leu Arg Ile Gly Phe Gly Ala Phe Val Asp Lys Pro Val Ser Pro  
50 55 60

Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu Asn Pro Cys Tyr Asp  
65 70 75 80

Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr Lys His Val Leu Thr

Leu Thr Asp Gln Val Thr Arg Phe Asn Glu Glu Val Lys Lys Gln Ser  
 100 105 110

Val Ser Arg Asn Arg Asp Ala Pro Glu  
 115 120

<210> 136  
 <211> 87  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(87)

<400> 136  
 gga gta agt agt tgc cag caa tgt tta gca gta agt cca atg tgt gca  
 48  
 Gly Val Ser Ser Cys Gln Gln Cys Leu Ala Val Ser Pro Met Cys Ala  
 1 5 10 15

tgg tgc agt gat gaa gca tta cca tta gga agt cca aga  
 87  
 Trp Cys Ser Asp Glu Ala Leu Pro Leu Gly Ser Pro Arg  
 20 25

<210> 137  
 <211> 29  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 137

Gly Val Ser Ser Cys Gln Gln Cys Leu Ala Val Ser Pro Met Cys Ala  
1 5 10 15

Trp Cys Ser Asp Glu Ala Leu Pro Leu Gly Ser Pro Arg  
20 25

<210> 138

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(63)

<400> 138

gta tta gaa gac aga cca tta agt gat aaa gga agt gga gat agt agt  
48  
Val Leu Glu Asp Arg Pro Leu Ser Asp Lys Gly Ser Gly Asp Ser Ser  
1 5 10 15

caa gta aca cag gta  
63  
Gln Val Thr Gln Val

20

<210> 139

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 139

Val Leu Glu Asp Arg Pro Leu Ser Asp Lys Gly Ser Gly Asp Ser Ser  
1 5 10 15

Gln Val Thr Gln Val  
20

<210> 140  
<211> 153  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(153)

<400> 140  
aac atc aat tta ata ttt gca gtc aca gaa aac gta gtg aat ctt tac  
48  
Asn Ile Asn Leu Ile Phe Ala Val Thr Glu Asn Val Val Asn Leu Tyr  
1 5 10 15

cag aac tat agt gag cta ata cca gga aca aca gta gga gtt ctc agt  
96  
Gln Asn Tyr Ser Glu Leu Ile Pro Gly Thr Thr Val Gly Val Leu Ser  
20 25 30

atg gat agt agt aat gta ctg caa ttg att gta gac gca tat gga aaa 1  
44  
Met Asp Ser Ser Asn Val Leu Gln Leu Ile Val Asp Ala Tyr Gly Lys  
35 40 45

ata aga agt 1  
53  
Ile Arg Ser

50

<210> 141  
 <211> 51  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 141

Asn Ile Asn Leu Ile Phe Ala Val Thr Glu Asn Val Val Asn Leu Tyr  
 1 5 10 15

Gln Asn Tyr Ser Glu Leu Ile Pro Gly Thr Thr Val Gly Val Leu Ser  
 20 25 30

Met Asp Ser Ser Asn Val Leu Gln Leu Ile Val Asp Ala Tyr Gly Lys  
 35 40 45

Ile Arg Ser  
 50

<210> 142  
 <211> 123  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(123)

<400> 142  
 ata gga ttt gga gca ttc gta gac aaa cca gta agt cct tac atg tat  
 48  
 Ile Gly Phe Gly Ala Phe Val Asp Lys Pro Val Ser Pro Tyr Met Tyr

1                    5                    10                    15

ata agt cca ccc gaa gca tta gag aat cca tgc tac gat atg aag aca  
 96  
 Ile Ser Pro Pro Glu Ala Leu Glu Asn Pro Cys Tyr Asp Met Lys Thr

20                    25                    30

aca tgt tta ccg atg ttt gga tat aaa  
 23  
 Thr Cys Leu Pro Met Phe Gly Tyr Lys

35                    40

1

<210> 143  
 <211> 41  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 143

Ile Gly Phe Gly Ala Phe Val Asp Lys Pro Val Ser Pro Tyr Met Tyr  
 1                    5                    10                    15

Ile Ser Pro Pro Glu Ala Leu Glu Asn Pro Cys Tyr Asp Met Lys Thr  
 20                    25                    30

Thr Cys Leu Pro Met Phe Gly Tyr Lys  
 35                    40

<210> 144  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(36)

<400> 144  
 agt gta agt aga aat aga gat gca cca gaa gga gga  
 36  
 Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly  
 1 5 10

<210> 145  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin  
 <400> 145

Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly  
 1 5 10

<210> 146  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(33)

<400> 146  
 agt gat agt aga aat aga gat gca cca gaa gga  
 33  
 Ser Asp Ser Arg Asn Arg Asp Ala Pro Glu Gly  
 1 5 10



<210> 147  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 147

Ser Asp Ser Arg Asn Arg Asp Ala Pro Glu Gly  
 1 5 10

<210> 148  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(15)

<400> 148  
 aga aat aga gat gca  
 15  
 Arg Asn Arg Asp Ala  
 1 5

<210> 149  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 149

Arg Asn Arg Asp Ala  
1 5

<210> 150  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(45)

<400> 150  
gat gca cca gaa gga gga ttt gac gca ata atg caa gca aca gta  
45  
Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val  
1 5 10 15

<210> 151  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 151

Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val  
1 5 10 15

<210> 152  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(45)

<400> 152  
 gat gca cca gaa gga gga ttt gac gca ata atg caa gca aca gta  
 45  
 Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val  
 1 5 10 15

<210> 153  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 153  
 Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val  
 1 5 10 15

<210> 154  
 <211> 258  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(258)

<400> 154  
 gat gcg cca gaa ggt ggg ttt gac gcg atc atg caa gct aca gtg tgc  
 48  
 Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val Cys  
 1 5 10 15

130588.00025.ST25.txt

gac gaa aaa ata ggc tgg aga aac gat gca agt cac ctc ctt gtc ttc  
96

Asp Glu Lys Ile Gly Trp Arg Asn Asp Ala Ser His Leu Leu Val Phe

20

25

30

aca acc gat gca aaa aca cat att gcc ctg gac ggg aga ttg gcc ggc  
44

Thr Thr Asp Ala Lys Thr His Ile Ala Leu Asp Gly Arg Leu Ala Gly

35

40

45

1

ata gtt caa cca aat gat ggt cag tgt cat gta gga tca gac aat cac  
92

Ile Val Gln Pro Asn Asp Gly Gln Cys His Val Gly Ser Asp Asn His

50

55

60

1

tat tct gct agc act acg atg gat tac cca tcc tta gga tta atg aca  
40

Tyr Ser Ala Ser Thr Thr Met Asp Tyr Pro Ser Leu Gly Leu Met Thr

65

70

75

80

2

gag aag cta tcg cag aag  
58

Glu Lys Leu Ser Gln Lys

85

2

<210> 155

<211> 86

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 155

Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val Cys

```

1           5           10           15
Asp Glu Lys Ile Gly Trp Arg Asn Asp Ala Ser His Leu Leu Val Phe
      20                25                30
Thr Thr Asp Ala Lys Thr His Ile Ala Leu Asp Gly Arg Leu Ala Gly
      35                40                45
Ile Val Gln Pro Asn Asp Gly Gln Cys His Val Gly Ser Asp Asn His
      50                55                60
Tyr Ser Ala Ser Thr Thr Met Asp Tyr Pro Ser Leu Gly Leu Met Thr
      65                70                75                80
Glu Lys Leu Ser Gln Lys
      85

```

```

<210> 156
<211> 42
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Integrin

```

```

<220>
<221> CDS
<222> (1)..(42)

```

```

<400> 156
atg gac tta agt tat agt atg aaa gat gat tta tgg agt ata
42
Met Asp Leu Ser Tyr Ser Met Lys Asp Asp Leu Trp Ser Ile

```

```

1           5           10

```

```

<210> 157
<211> 14
<212> PRT

```

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 157

Met Asp Leu Ser Tyr Ser Met Lys Asp Asp Leu Trp Ser Ile  
1 5 10

<210> 158

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(18)

<400> 158

gga cca aat ata tgt aca  
18

Gly Pro Asn Ile Cys Thr

1 5

<210> 159

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 159

Gly Pro Asn Ile Cys Thr  
1 5

<210> 160

<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(39)

<400> 160  
gga cca aat ata tgt aca aca aga gga gta agt agt tgc  
39  
Gly Pro Asn Ile Cys Thr Thr Arg Gly Val Ser Ser Cys  
1 5 10

<210> 161  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 161

Gly Pro Asn Ile Cys Thr Thr Arg Gly Val Ser Ser Cys  
1 5 10

<210> 162  
<211> 207  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(207)

130588.00025.ST25.txt

<400> 162

aaa gat tct tta ata gta cag gta aca ttt gac tgt gac tgt gca tgt  
48

Lys Asp Ser Leu Ile Val Gln Val Thr Phe Asp Cys Asp Cys Ala Cys

1 5 10 15

cag gca caa gca gaa ccc aac tcg cat aga tgc aac aat gga aat ggc  
96

Gln Ala Gln Ala Glu Pro Asn Ser His Arg Cys Asn Asn Gly Asn Gly

20 25 30

aca ttc gaa tgc gga gta tgc aga tgc gga ccg ggt tgg tta ggg agt  
44

Thr Phe Glu Cys Gly Val Cys Arg Cys Gly Pro Gly Trp Leu Gly Ser

35 40 45

cag tgt gaa tgc tca gag gaa gat tat aga cct tcc caa caa gat gag  
92

Gln Cys Glu Cys Ser Glu Glu Asp Tyr Arg Pro Ser Gln Gln Asp Glu

50 55 60

tgt agc cca aga gag

07

Cys Ser Pro Arg Glu

65

<210> 163

<211> 69

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 163

Lys Asp Ser Leu Ile Val Gln Val Thr Phe Asp Cys Asp Cys Ala Cys



1

5

10

15

Gln Ala Gln Ala Glu Pro Asn Ser His Arg Cys Asn Asn Gly Asn Gly  
20 25 30

Thr Phe Glu Cys Gly Val Cys Arg Cys Gly Pro Gly Trp Leu Gly Ser  
35 40 45

Gln Cys Glu Cys Ser Glu Glu Asp Tyr Arg Pro Ser Gln Gln Asp Glu  
50 55 60

Cys Ser Pro Arg Glu  
65

&lt;210&gt; 164

&lt;211&gt; 267

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(267)

&lt;400&gt; 164

cct act tgc ccg gat gct tgc act ttt aaa aaa gaa tgt gta gaa tgc  
48

Pro Thr Cys Pro Asp Ala Cys Thr Phe Lys Lys Glu Cys Val Glu Cys

1

5

10

15

aaa aaa ttt gac cgt gag ccc tat atg aca gaa aat act tgc aac agg  
96

Lys Lys Phe Asp Arg Glu Pro Tyr Met Thr Glu Asn Thr Cys Asn Arg

20

25

30

tat tgt aga gat gaa ata gag agc gtt aaa gag tta aaa gat aca ggt

1

44  
Tyr Cys Arg Asp Glu Ile Glu Ser Val Lys Glu Leu Lys Asp Thr Gly

35

40

45

aaa gat gca gtt aac tgt aca tat aaa aat gag gac gat tgt gtg gta  
92  
Lys Asp Ala Val Asn Cys Thr Tyr Lys Asn Glu Asp Asp Cys Val Val

1

50

55

60

cga ttc caa tat tat gaa gac agt tca gga aaa tct ata ttg tat gta  
40  
Arg Phe Gln Tyr Tyr Glu Asp Ser Ser Gly Lys Ser Ile Leu Tyr Val

2

65 70 75 80

gtg gaa gag cca gaa tgt cca aaa ggg  
67  
Val Glu Glu Pro Glu Cys Pro Lys Gly

2

85

<210> 165  
<211> 89  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Integrin

<400> 165

Pro Thr Cys Pro Asp Ala Cys Thr Phe Lys Lys Glu Cys Val Glu Cys  
1 5 10 15

Lys Lys Phe Asp Arg Glu Pro Tyr Met Thr Glu Asn Thr Cys Asn Arg  
20 25 30

Tyr Cys Arg Asp Glu Ile Glu Ser Val Lys Glu Leu Lys Asp Thr Gly  
35 40 45

Lys Asp Ala Val Asn Cys Thr Tyr Lys Asn Glu Asp Asp Cys Val Val  
 50 55 60

Arg Phe Gln Tyr Tyr Glu Asp Ser Ser Gly Lys Ser Ile Leu Tyr Val  
 65 70 75 80

Val Glu Glu Pro Glu Cys Pro Lys Gly  
 85

<210> 166  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(15)

<400> 166  
 aaa gat gac tta tgg  
 15  
 Lys Asp Asp Leu Trp

1 5

<210> 167  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence.

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 167

Lys Asp Asp Leu Trp  
 1 5

<210> 168  
 <211> 39  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(39)

<400> 168  
 agt gta agt aga aat aga gat gca cca gaa gga gga ttt  
 39  
 Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly Phe  
 1 5 10

<210> 169  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 169

Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly Phe  
 1 5 10

<210> 170  
 <211> 270  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>

&lt;221&gt; CDS

&lt;222&gt; (1)..(270)

&lt;400&gt; 170

cac gtg ggg agt gac aac cat tat tcc gca tct aca act atg gac tat  
48

His Val Gly Ser Asp Asn His Tyr Ser Ala Ser Thr Thr Met Asp Tyr

1 5 10 15

cca agt ctg ggc tta atg aca gag aag tta agc caa aag aat tta aac  
96

Pro Ser Leu Gly Leu Met Thr Glu Lys Leu Ser Gln Lys Asn Leu Asn

20 25 30

ttg atc ttt gca gtt aca gag aac gta gtc aat ctt tac cag aat tac  
44

Leu Ile Phe Ala Val Thr Glu Asn Val Val Asn Leu Tyr Gln Asn Tyr

35 40 45

agt gag cta att cca gga acg acc gta gga gta ttg tcg atg gat agt  
92

Ser Glu Leu Ile Pro Gly Thr Thr Val Gly Val Leu Ser Met Asp Ser

50 55 60

tca aat gtc ctc caa cta ata gtg gat gca tat ggt aaa ata aga agt  
40

Ser Asn Val Leu Gln Leu Ile Val Asp Ala Tyr Gly Lys Ile Arg Ser

65 70 75 80

aaa gtt gaa tta gaa gta aga gat ctc cca

70

Lys Val Glu Leu Glu Val Arg Asp Leu Pro

85 90

&lt;210&gt; 171

<211> 90  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 171

His Val Gly Ser Asp Asn His Tyr Ser Ala Ser Thr Thr Met Asp Tyr  
 1 5 10 15

Pro Ser Leu Gly Leu Met Thr Glu Lys Leu Ser Gln Lys Asn Leu Asn  
 20 25 30

Leu Ile Phe Ala Val Thr Glu Asn Val Val Asn Leu Tyr Gln Asn Tyr  
 35 40 45

Ser Glu Leu Ile Pro Gly Thr Thr Val Gly Val Leu Ser Met Asp Ser  
 50 55 60

Ser Asn Val Leu Gln Leu Ile Val Asp Ala Tyr Gly Lys Ile Arg Ser  
 65 70 75 80

Lys Val Glu Leu Glu Val Arg Asp Leu Pro  
 85 90

<210> 172  
 <211> 417  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(417)

<400> 172  
 gac gat agt aaa aat ttc agt att caa gta cga caa gta gaa gac tat

48  
 Asp Asp Ser Lys Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr

1 5 10 15

ccc gtt gac atc tac tat cta atg gat tta agt tac agt atg aaa gat  
 96  
 Pro Val Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys Asp

20 25 30

gat tta tgg agt ata cag aat ttg ggg acc aag ctt gca acc caa atg  
 44  
 Asp Leu Trp Ser Ile Gln Asn Leu Gly Thr Lys Leu Ala Thr Gln Met

35 40 45

aga aag ctg aca tcg aac tta agg att gga ttt gga gca ttc gtt gat  
 92  
 Arg Lys Leu Thr Ser Asn Leu Arg Ile Gly Phe Gly Ala Phe Val Asp

50 55 60

aag cct gtg tca ccg tat atg tac atc tct ccc cca gag gct tta gaa  
 40  
 Lys Pro Val Ser Pro Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu

65 70 75 80

aat ccg tgt tac gac atg aaa acg aca tgt tta cct atg ttt ggt tat  
 88  
 Asn Pro Cys Tyr Asp Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr

85 90 95

aaa cat gta tta acg ctc act gac cag gta aca cgt ttt aac gaa gag  
 36  
 Lys His Val Leu Thr Leu Thr Asp Gln Val Thr Arg Phe Asn Glu Glu

100 105 110

130588.00025.ST25.txt

gtc aag aaa cag agc gtg tcc cgg aac cgc gat gcg cca gag ggc gga 3  
84  
Val Lys Lys Gln Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly  
115 120 125

ttc gac gcc ata atg caa gca act gtc tgc gat 4  
17  
Phe Asp Ala Ile Met Gln Ala Thr Val Cys Asp  
130 135

<210> 173  
<211> 139  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 173

Asp Asp Ser Lys Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr  
1 5 10 15

Pro Val Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys Asp  
20 25 30

Asp Leu Trp Ser Ile Gln Asn Leu Gly Thr Lys Leu Ala Thr Gln Met  
35 40 45

Arg Lys Leu Thr Ser Asn Leu Arg Ile Gly Phe Gly Ala Phe Val Asp  
50 55 60

Lys Pro Val Ser Pro Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu  
65 70 75 80

Asn Pro Cys Tyr Asp Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr  
85 90 95



Lys His Val Leu Thr Leu Thr Asp Gln Val Thr Arg Phe Asn Glu Glu  
100 105 110

Val Lys Lys Gln Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly  
115 120 125

Phe Asp Ala Ile Met Gln Ala Thr Val Cys Asp  
130 135

<210> 174  
<211> 117  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(117)

<400> 174  
tat atg tac ata agt ccc ccg gaa gca tta gag aat cct tgt tac gat  
48  
Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu Asn Pro Cys Tyr Asp  
1 5 10 15

atg aaa act acc tgc tta cca atg ttt gga tat aag cat gta tta aca  
96  
Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr Lys His Val Leu Thr  
20 25 30

tta acg gac caa gta aca aga  
17  
Leu Thr Asp Gln Val Thr Arg  
35

<210> 175  
 <211> 39  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 175

Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu Asn Pro Cys Tyr Asp  
 1 5 10 15

Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr Lys His Val Leu Thr  
 20 25 30

Leu Thr Asp Gln Val Thr Arg  
 35

<210> 176  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(18)

<400> 176  
 aga aat aga gat gca tat  
 18  
 Arg Asn Arg Asp Ala Tyr  
 1 5

<210> 177  
 <211> 6  
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 177

Arg Asn Arg Asp Ala Tyr

1 5

<210> 178

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(48)

<400> 178

gac gca cca gaa gga gga ttt gat gca ata atg caa gca aca gta tat  
48

Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val Tyr

1 5 10 15

<210> 179

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 179

Asp Ala Pro Glu Gly Gly Phe Asp Ala Ile Met Gln Ala Thr Val Tyr  
1 5 10 15

<210> 180

<211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(24)

<400> 180  
 tgc tat gat atg aaa aca aca tgt  
 24  
 Cys Tyr Asp Met Lys Thr Thr Cys

1 5

<210> 181  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 181

Cys Tyr Asp Met Lys Thr Thr Cys  
 1 5

<210> 182  
 <211> 60  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(60)

<400> 182  
aat ttt agt ata cag gta aga caa gta gaa gac tat cca gta gat ata  
48  
Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr Pro Val Asp Ile

1 5 10 15

tat tac tta atg  
60  
Tyr Tyr Leu Met

20

<210> 183  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 183  
Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr Pro Val Asp Ile  
1 5 10 15

Tyr Tyr Leu Met  
20

<210> 184  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(15)

<400> 184

gat atg aaa aca aca  
15  
Asp Met Lys Thr Thr

1 5

<210> 185  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 185

Asp Met Lys Thr Thr  
1 5

<210> 186  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(15)

<400> 186  
ata agt cca cca gca  
15  
Ile Ser Pro Pro Ala

1 5

<210> 187  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 187

Ile Ser Pro Pro Ala  
1 5

<210> 188  
<211> 36  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(36)

<400> 188  
aaa caa agt gta agt aga aat aga gat gca cca gaa  
36  
Lys Gln Ser Val Ser Arg Asn Arg Asp Ala Pro Glu  
1 5 10

<210> 189  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 189

Lys Gln Ser Val Ser Arg Asn Arg Asp Ala Pro Glu  
1 5 10

<210> 190  
<211> 837

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(837)

&lt;400&gt; 190

gat gac agt aaa aat ttt agt atc cag gta aga cag gta gaa gat tat  
48

Asp Asp Ser Lys Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr

1 5 10 15

cca gtc gac ata tat tac ctc atg gac ctg agt tac agt atg aag gat  
96

Pro Val Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys Asp

20 25 30

gat ctc tgg tca att caa aat cta ggg act aag ctt gcg acg caa atg  
44

Asp Leu Trp Ser Ile Gln Asn Leu Gly Thr Lys Leu Ala Thr Gln Met

35 40 45

aga aaa ttg aca agc aat tta cga att gga ttt gga gca ttc gtc gat  
92

Arg Lys Leu Thr Ser Asn Leu Arg Ile Gly Phe Gly Ala Phe Val Asp

50 55 60

aag cct gtt agt cct tac atg tac atc tca ccc cct gaa gcc tta gag  
40

Lys Pro Val Ser Pro Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu

65 70 75 80

aac ccc tgc tat gac atg aaa acc aca tgt tta ccg atg ttt ggt tat

2



88

Asn Pro Cys Tyr Asp Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr

85

90

95

aaa cat gtg ctc acg ctt acg gac caa gtg act cgg ttc aat gag gaa 3

36

Lys His Val Leu Thr Leu Thr Asp Gln Val Thr Arg Phe Asn Glu Glu

100

105

110

gta aaa aag cag tct gtc agt agg aac cgt gat gca ccg gaa gga gga 3

84

Val Lys Lys Gln Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly

115

120

125

ttt gac gcg ata atg caa gcc aca gta tgt gac gag aaa ata ggc tgg 4

32

Phe Asp Ala Ile Met Gln Ala Thr Val Cys Asp Glu Lys Ile Gly Trp

130

135

140

cgc aac gat gca tcc cat tta ctg gtg ttc acc act gat gcg aaa aca 4

80

Arg Asn Asp Ala Ser His Leu Leu Val Phe Thr Thr Asp Ala Lys Thr

145

150

155

160

cac atc gca ttg gat ggt aga ttg gct gga ata gta cag cca aat gat 5

28

His Ile Ala Leu Asp Gly Arg Leu Ala Gly Ile Val Gln Pro Asn Asp

165

170

175

ggc caa tgc cat gtc ggg agc gac aac cac tat tcg gca agt acc acg 5

76

Gly Gln Cys His Val Gly Ser Asp Asn His Tyr Ser Ala Ser Thr Thr

180

185

190

## 130588.00025.ST25.txt

atg gac tac ccc agc tta ggt cta atg act gag aag tta tcg cag aag 6  
24

Met Asp Tyr Pro Ser Leu Gly Leu Met Thr Glu Lys Leu Ser Gln Lys

195

200

205

aac ctt aac cta atc ttc gct gta aca gaa aat gta gtt aat tta tat 6  
72

Asn Leu Asn Leu Ile Phe Ala Val Thr Glu Asn Val Val Asn Leu Tyr

210

215

220

caa aac tac tcg gaa ctg ata ccg gga aca aca gtt ggg gtc ttg tcc 7  
20

Gln Asn Tyr Ser Glu Leu Ile Pro Gly Thr Thr Val Gly Val Leu Ser

225

230

235

240

atg gac tca agt aat gtt tta cag cta att gtg gac gct tat ggc aag 7  
68

Met Asp Ser Ser Asn Val Leu Gln Leu Ile Val Asp Ala Tyr Gly Lys

245

250

255

att aga tcc aaa gtg gag tta gaa gtt aga gat ctt cca gag gag ctc 8  
16

Ile Arg Ser Lys Val Glu Leu Glu Val Arg Asp Leu Pro Glu Glu Leu

260

265

270

tct ctg tct ttt aac gcc acc 8  
37

Ser Leu Ser Phe Asn Ala Thr

275

<210> 191

<211> 279

<212> PRT

<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;400&gt; 191

Asp Asp Ser Lys Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr  
 1 5 10 15

Pro Val Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys Asp  
 20 25 30

Asp Leu Trp Ser Ile Gln Asn Leu Gly Thr Lys Leu Ala Thr Gln Met  
 35 40 45

Arg Lys Leu Thr Ser Asn Leu Arg Ile Gly Phe Gly Ala Phe Val Asp  
 50 55 60

Lys Pro Val Ser Pro Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu  
 65 70 75 80

Asn Pro Cys Tyr Asp Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr  
 85 90 95

Lys His Val Leu Thr Leu Thr Asp Gln Val Thr Arg Phe Asn Glu Glu  
 100 105 110

Val Lys Lys Gln Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly  
 115 120 125

Phe Asp Ala Ile Met Gln Ala Thr Val Cys Asp Glu Lys Ile Gly Trp  
 130 135 140

Arg Asn Asp Ala Ser His Leu Leu Val Phe Thr Thr Asp Ala Lys Thr  
 145 150 155 160

His Ile Ala Leu Asp Gly Arg Leu Ala Gly Ile Val Gln Pro Asn Asp  
 165 170 175

Gly Gln Cys His Val Gly Ser Asp Asn His Tyr Ser Ala Ser Thr Thr  
180 185 190

Met Asp Tyr Pro Ser Leu Gly Leu Met Thr Glu Lys Leu Ser Gln Lys  
195 200 205

Asn Leu Asn Leu Ile Phe Ala Val Thr Glu Asn Val Val Asn Leu Tyr  
210 215 220

Gln Asn Tyr Ser Glu Leu Ile Pro Gly Thr Thr Val Gly Val Leu Ser  
225 230 235 240

Met Asp Ser Ser Asn Val Leu Gln Leu Ile Val Asp Ala Tyr Gly Lys  
245 250 255

Ile Arg Ser Lys Val Glu Leu Glu Val Arg Asp Leu Pro Glu Glu Leu  
260 265 270

Ser Leu Ser Phe Asn Ala Thr  
275

<210> 192  
<211> 621  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(621)

<400> 192  
gat gat tct aag aat ttt tcc atc cag gtt cga cag gtc gaa gat tac  
48  
Asp Asp Ser Lys Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr

1 5 10 15

cca gta gac ata tat tac cta atg gat ctc agt tat agt atg aag gac  
96

Pro Val Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys Asp

20

25

30

gat cta tgg agt atc caa aac ctg ggc acg aaa ctt gcc act caa atg  
44

Asp Leu Trp Ser Ile Gln Asn Leu Gly Thr Lys Leu Ala Thr Gln Met

35

40

45

cgg aaa tta aca tca aac ttg agg att ggc ttt ggg gca ttc gtg gat  
92

Arg Lys Leu Thr Ser Asn Leu Arg Ile Gly Phe Gly Ala Phe Val Asp

50

55

60

aaa ccc gta tcc cca tat atg tac atc tct cca ccg gag gca ctc gaa  
40

Lys Pro Val Ser Pro Tyr Met Tyr Ile Ser Pro Pro Glu Ala Leu Glu

65

70

75

80

aac cct tgc tac gac atg aag acc aca tgc ctt cct atg ttt ggg tat  
88

Asn Pro Cys Tyr Asp Met Lys Thr Thr Cys Leu Pro Met Phe Gly Tyr

85

90

95

aaa cac gtg ctt act tta acc gac cag gtt acg aga ttc aat gaa gag  
36

Lys His Val Leu Thr Leu Thr Asp Gln Val Thr Arg Phe Asn Glu Glu

100

105

110

gta aaa aag caa agt gta agc cgt aac aga gac gca ccg gag gga ggg  
84

Val Lys Lys Gln Ser Val Ser Arg Asn Arg Asp Ala Pro Glu Gly Gly

115

120

125

ttc gac gca ata atg caa gct act gtc tgt gac gag aag att gga tgg 4  
32

Phe Asp Ala Ile Met Gln Ala Thr Val Cys Asp Glu Lys Ile Gly Trp

130

135

140

aga aat gat gcg tcg cat ttg tta gtc ttt aca aca gat gcc aaa aca 4  
80

Arg Asn Asp Ala Ser His Leu Leu Val Phe Thr Thr Asp Ala Lys Thr

145

150

155

160

cac att gcg ctg gac ggt cgc ctc gca ggc ata gtt cag cca aat gat 5  
28

His Ile Ala Leu Asp Gly Arg Leu Ala Gly Ile Val Gln Pro Asn Asp

165

170

175

ggc cag tgt cat gtg ggt agt gat aat cat tat agc gct tca aca acc 5  
76

Gly Gln Cys His Val Gly Ser Asp Asn His Tyr Ser Ala Ser Thr Thr

180

185

190

atg gac tac ccc agt cta gga ctg atg acg gaa aag ttg tcg caa 6  
21

Met Asp Tyr Pro Ser Leu Gly Leu Met Thr Glu Lys Leu Ser Gln

195

200

205

<210> 193

<211> 207

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 193

Asp	Asp	Ser	Lys	Asn	Phe	Ser	Ile	Gln	Val	Arg	Gln	Val	Glu	Asp	Tyr	1	5	10	15
Pro	Val	Asp	Ile	Tyr	Tyr	Leu	Met	Asp	Leu	Ser	Tyr	Ser	Met	Lys	Asp	20	25	30	
Asp	Leu	Trp	Ser	Ile	Gln	Asn	Leu	Gly	Thr	Lys	Leu	Ala	Thr	Gln	Met	35	40	45	
Arg	Lys	Leu	Thr	Ser	Asn	Leu	Arg	Ile	Gly	Phe	Gly	Ala	Phe	Val	Asp	50	55	60	
Lys	Pro	Val	Ser	Pro	Tyr	Met	Tyr	Ile	Ser	Pro	Pro	Glu	Ala	Leu	Glu	65	70	75	80
Asn	Pro	Cys	Tyr	Asp	Met	Lys	Thr	Thr	Cys	Leu	Pro	Met	Phe	Gly	Tyr	85	90	95	
Lys	His	Val	Leu	Thr	Leu	Thr	Asp	Gln	Val	Thr	Arg	Phe	Asn	Glu	Glu	100	105	110	
Val	Lys	Lys	Gln	Ser	Val	Ser	Arg	Asn	Arg	Asp	Ala	Pro	Glu	Gly	Gly	115	120	125	
Phe	Asp	Ala	Ile	Met	Gln	Ala	Thr	Val	Cys	Asp	Glu	Lys	Ile	Gly	Trp	130	135	140	
Arg	Asn	Asp	Ala	Ser	His	Leu	Leu	Val	Phe	Thr	Thr	Asp	Ala	Lys	Thr	145	150	155	160
His	Ile	Ala	Leu	Asp	Gly	Arg	Leu	Ala	Gly	Ile	Val	Gln	Pro	Asn	Asp	165	170	175	
Gly	Gln	Cys	His	Val	Gly	Ser	Asp	Asn	His	Tyr	Ser	Ala	Ser	Thr	Thr	180	185	190	

Met Asp Tyr Pro Ser Leu Gly Leu Met Thr Glu Lys Leu Ser Gln  
 195 200 205

<210> 194  
 <211> 1053  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(1053)

<400> 194  
 aag caa ctg aat ttc acg gcc tct gga gag gca gag gcc cgc aga tgc  
 48  
 Lys Gln Leu Asn Phe Thr Ala Ser Gly Glu Ala Glu Ala Arg Arg Cys  
 1 5 10 15

gca cgg agg gaa gag ctc cta gct agg gga tgc ccc ctg gag gag cta  
 96  
 Ala Arg Arg Glu Glu Leu Leu Ala Arg Gly Cys Pro Leu Glu Glu Leu  
 20 25 30

gaa gag cca cgt gga cag caa gag gta cta cag gat cag ccg ctg tcg 1  
 44  
 Glu Glu Pro Arg Gly Gln Gln Glu Val Leu Gln Asp Gln Pro Leu Ser  
 35 40 45

caa gga gcc cga ggt gag ggt gcg acc cag cta gca cca caa cgc gta 1  
 92  
 Gln Gly Ala Arg Gly Glu Gly Ala Thr Gln Leu Ala Pro Gln Arg Val  
 50 55 60

cgc gtt aca tta cgg cca ggc gaa cca caa caa tta cag gta aga ttt 2



40  
Arg Val Thr Leu Arg Pro Gly Glu Pro Gln Gln Leu Gln Val Arg Phe

65 70 75 80

ttg cgt gct gaa ggg tat ccg gtg gat tta tac tat ctc atg gat ctt 2  
88  
Leu Arg Ala Glu Gly Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu

85 90 95

agt tac tcc atg aag gat gat cta gaa agg gta cgc caa ctg ggt cat 3  
36  
Ser Tyr Ser Met Lys Asp Asp Leu Glu Arg Val Arg Gln Leu Gly His

100 105 110

gcc tta ttg gta aga tta caa gaa gta aca cat agc gta cgt atc ggg 3  
84  
Ala Leu Leu Val Arg Leu Gln Glu Val Thr His Ser Val Arg Ile Gly

115 120 125

ttt gga tct ttc gta gac aaa acc gtt tta cct ttc gtg agt acc gtg 4  
32  
Phe Gly Ser Phe Val Asp Lys Thr Val Leu Pro Phe Val Ser Thr Val

130 135 140

cct agc aaa ttg cgt cac cct tgt cca act agg ctt gag cga tgc cag 4  
80  
Pro Ser Lys Leu Arg His Pro Cys Pro Thr Arg Leu Glu Arg Cys Gln

145 150 155 160

agt ccg ttc tca ttc cac cat gtt ttg agt tta act gga gat gcc cag 5  
28  
Ser Pro Phe Ser Phe His His Val Leu Ser Leu Thr Gly Asp Ala Gln

165 170 175

## 130588.00025.ST25.txt

gcc ttc gag cga gaa gtc ggc cgg caa tcc gtt tct ggg aat tta gac 5  
 76  
 Ala Phe Glu Arg Glu Val Gly Arg Gln Ser Val Ser Gly Asn Leu Asp  
 180 185 190

agt ccc gag gga ggg ttt gac gcg ata ctt caa gca gcg ctc tgt cag 6  
 24  
 Ser Pro Glu Gly Gly Phe Asp Ala Ile Leu Gln Ala Ala Leu Cys Gln  
 195 200 205

gaa cag att ggc tgg cga aac gtc agc aga cta tta gtc ttt acg agt 6  
 72  
 Glu Gln Ile Gly Trp Arg Asn Val Ser Arg Leu Leu Val Phe Thr Ser  
 210 215 220

gac gat act ttt cac aca gca ggg gac gga aag ctt ggc ggt att ttt 7  
 20  
 Asp Asp Thr Phe His Thr Ala Gly Asp Gly Lys Leu Gly Gly Ile Phe  
 225 230 235 240

atg ccc agc gac ggt cat tgt cac ctc gat tca aat gga ttg tac agt 7  
 68  
 Met Pro Ser Asp Gly His Cys His Leu Asp Ser Asn Gly Leu Tyr Ser  
 245 250 255

cgg tcc aca gaa ttc gat tat cct tcg gtg ggc cag gtg gcg cag gca 8  
 16  
 Arg Ser Thr Glu Phe Asp Tyr Pro Ser Val Gly Gln Val Ala Gln Ala  
 260 265 270

ctg agt gct gca aac atc cag cca ata ttt gct gtt aca tcg gcg gcg 8  
 64  
 Leu Ser Ala Ala Asn Ile Gln Pro Ile Phe Ala Val Thr Ser Ala Ala  
 275 280 285

130588.00025.ST25.txt

ttg ccg gtt tac caa gaa ctc tca aaa tta ata ccc aaa tcc gct gtc 9  
12  
Leu Pro Val Tyr Gln Glu Leu Ser Lys Leu Ile Pro Lys Ser Ala Val

290

295

300

ggc gaa tta tct gag gac tcc tca aac gtg gtc caa ctc atc atg gac 9  
60  
Gly Glu Leu Ser Glu Asp Ser Ser Asn Val Val Gln Leu Ile Met Asp

305

310

315

320

gct tat aat tcg ctt agt agc acg gta aca ctg gaa cac tca tcg ctt 10  
08  
Ala Tyr Asn Ser Leu Ser Ser Thr Val Thr Leu Glu His Ser Ser Leu

325

330

335

ccg ccc ggt gtc cat att tct tat gag agt caa tgt gaa ggg cct 10  
53  
Pro Pro Gly Val His Ile Ser Tyr Glu Ser Gln Cys Glu Gly Pro

340

345

350

<210> 195  
<211> 351  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 195

Lys Gln Leu Asn Phe Thr Ala Ser Gly Glu Ala Glu Ala Arg Arg Cys  
1 5 10 15

Ala Arg Arg Glu Glu Leu Leu Ala Arg Gly Cys Pro Leu Glu Glu Leu  
20 25 30

130588.00025.ST25.txt

Glu Glu Pro Arg Gly Gln Gln Glu Val Leu Gln Asp Gln Pro Leu Ser  
35 40 45

Gln Gly Ala Arg Gly Glu Gly Ala Thr Gln Leu Ala Pro Gln Arg Val  
50 55 60

Arg Val Thr Leu Arg Pro Gly Glu Pro Gln Gln Leu Gln Val Arg Phe  
65 70 75 80

Leu Arg Ala Glu Gly Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu  
85 90 95

Ser Tyr Ser Met Lys Asp Asp Leu Glu Arg Val Arg Gln Leu Gly His  
100 105 110

Ala Leu Leu Val Arg Leu Gln Glu Val Thr His Ser Val Arg Ile Gly  
115 120 125

Phe Gly Ser Phe Val Asp Lys Thr Val Leu Pro Phe Val Ser Thr Val  
130 135 140

Pro Ser Lys Leu Arg His Pro Cys Pro Thr Arg Leu Glu Arg Cys Gln  
145 150 155 160

Ser Pro Phe Ser Phe His His Val Leu Ser Leu Thr Gly Asp Ala Gln  
165 170 175

Ala Phe Glu Arg Glu Val Gly Arg Gln Ser Val Ser Gly Asn Leu Asp  
180 185 190

Ser Pro Glu Gly Gly Phe Asp Ala Ile Leu Gln Ala Ala Leu Cys Gln  
195 200 205

Glu Gln Ile Gly Trp Arg Asn Val Ser Arg Leu Leu Val Phe Thr Ser  
210 215 220

130588.00025.ST25.txt

Asp Asp Thr Phe His Thr Ala Gly Asp Gly Lys Leu Gly Gly Ile Phe  
225 230 235 240

Met Pro Ser Asp Gly His Cys His Leu Asp Ser Asn Gly Leu Tyr Ser  
245 250 255

Arg Ser Thr Glu Phe Asp Tyr Pro Ser Val Gly Gln Val Ala Gln Ala  
260 265 270

Leu Ser Ala Ala Asn Ile Gln Pro Ile Phe Ala Val Thr Ser Ala Ala  
275 280 285

Leu Pro Val Tyr Gln Glu Leu Ser Lys Leu Ile Pro Lys Ser Ala Val  
290 295 300

Gly Glu Leu Ser Glu Asp Ser Ser Asn Val Val Gln Leu Ile Met Asp  
305 310 315 320

Ala Tyr Asn Ser Leu Ser Ser Thr Val Thr Leu Glu His Ser Ser Leu  
325 330 335

Pro Pro Gly Val His Ile Ser Tyr Glu Ser Gln Cys Glu Gly Pro  
340 345 350

<210> 196

<211> 273

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(273)

<400> 196

agt ttt gtt gat aaa aca gtc ctg ccg ttc gta agt acc gta cca agt  
48

130588.00025.ST25.txt

Ser Phe Val Asp Lys Thr Val Leu Pro Phe Val Ser Thr Val Pro Ser

1 5 10 15

aag tta cgc cat cca tgt cca acg agg ttg gag aga tgc cag tct cct  
96

Lys Leu Arg His Pro Cys Pro Thr Arg Leu Glu Arg Cys Gln Ser Pro

20 25 30

ttt tcc ttc cac cat gtc tta agc cta act ggt gac gct caa gcc ttt  
44

Phe Ser Phe His His Val Leu Ser Leu Thr Gly Asp Ala Gln Ala Phe

35 40 45

gaa cgg gaa gta gga aga caa tcg gtg agt ggg aac ctt gat tca ccc  
92

Glu Arg Glu Val Gly Arg Gln Ser Val Ser Gly Asn Leu Asp Ser Pro

50 55 60

gaa gga ggc ttc gac gca ata tta cag gcg gca ctc tgt cag gag caa  
40

Glu Gly Gly Phe Asp Ala Ile Leu Gln Ala Ala Leu Cys Gln Glu Gln

65 70 75 80

ata gga tgg cga aat gtt agt cgt tta tta gtg  
73

Ile Gly Trp Arg Asn Val Ser Arg Leu Leu Val

85 90

<210> 197

<211> 91

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

&lt;400&gt; 197

Ser Phe Val Asp Lys Thr Val Leu Pro Phe Val Ser Thr Val Pro Ser  
 1 5 10 15

Lys Leu Arg His Pro Cys Pro Thr Arg Leu Glu Arg Cys Gln Ser Pro  
 20 25 30

Phe Ser Phe His His Val Leu Ser Leu Thr Gly Asp Ala Gln Ala Phe  
 35 40 45

Glu Arg Glu Val Gly Arg Gln Ser Val Ser Gly Asn Leu Asp Ser Pro  
 50 55 60

Glu Gly Gly Phe Asp Ala Ile Leu Gln Ala Ala Leu Cys Gln Glu Gln  
 65 70 75 80

Ile Gly Trp Arg Asn Val Ser Arg Leu Leu Val  
 85 90

&lt;210&gt; 198

&lt;211&gt; 312

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Integrin

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(312)

&lt;400&gt; 198

aaa caa ctc aat ttc aca gct agt ggc gaa gca gag gct agg aga tgc  
 48

Lys Gln Leu Asn Phe Thr Ala Ser Gly Glu Ala Glu Ala Arg Arg Cys

1 5 10 15

## 130588.00025.ST25.txt

gcc agg cga gaa gaa tta ttg gca cgc ggg tgt ccc ctg gag gag ctt  
96

Ala Arg Arg Glu Glu Leu Leu Ala Arg Gly Cys Pro Leu Glu Glu Leu

20

25

30

gaa gag cca cgg ggt cag cag gaa gtt tta caa gat caa cca tta agt  
44

Glu Glu Pro Arg Gly Gln Gln Glu Val Leu Gln Asp Gln Pro Leu Ser

35

40

45

cag gga gca cgc ggc gaa ggg gcg aca caa tta gcg cca cag cgt gtc  
92

Gln Gly Ala Arg Gly Glu Gly Ala Thr Gln Leu Ala Pro Gln Arg Val

50

55

60

aga gtg aca ttg cga cca gga gag cct caa cag tta caa gta cgt ttt  
40

Arg Val Thr Leu Arg Pro Gly Glu Pro Gln Gln Leu Gln Val Arg Phe

65

70

75

80

ctt cgg gcc gag ggt tac ccg gta gat ctg tac tac cta atg gac ctc  
88

Leu Arg Ala Glu Gly Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu

85

90

95

agt tat agt atg aag gac gat cta  
12

Ser Tyr Ser Met Lys Asp Asp Leu

100

&lt;210&gt; 199

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence



<220>

<223> Description of Artificial Sequence: Integrin

<400> 199

Lys Gln Leu Asn Phe Thr Ala Ser Gly Glu Ala Glu Ala Arg Arg Cys  
1 5 10 15

Ala Arg Arg Glu Glu Leu Leu Ala Arg Gly Cys Pro Leu Glu Glu Leu  
20 25 30

Glu Glu Pro Arg Gly Gln Gln Glu Val Leu Gln Asp Gln Pro Leu Ser  
35 40 45

Gln Gly Ala Arg Gly Glu Gly Ala Thr Gln Leu Ala Pro Gln Arg Val  
50 55 60

Arg Val Thr Leu Arg Pro Gly Glu Pro Gln Gln Leu Gln Val Arg Phe  
65 70 75 80

Leu Arg Ala Glu Gly Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu  
85 90 95

Ser Tyr Ser Met Lys Asp Asp Leu  
100

<210> 200

<211> 1017

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(1017)

<400> 200

gaa aaa cgt gag gga aaa gcc gaa gac aga ggc cag tgt aac cac gtg

48  
Glu Lys Arg Glu Gly Lys Ala Glu Asp Arg Gly Gln Cys Asn His Val

1 5 10 15

agg ata aac caa acc gta acc ttc tgg gtc tcg ctt cag gca act cat  
96

Arg Ile Asn Gln Thr Val Thr Phe Trp Val Ser Leu Gln Ala Thr His

20 25 30

tgt tta ccc gaa cca cat ttg cta cgc ctc cgg gct tta ggg ttt tct  
44

Cys Leu Pro Glu Pro His Leu Leu Arg Leu Arg Ala Leu Gly Phe Ser

35 40 45

gag gag ctc ata gtt gag cta cac acg tta tgt gac tgc aat tgc tca  
92

Glu Glu Leu Ile Val Glu Leu His Thr Leu Cys Asp Cys Asn Cys Ser

50 55 60

gac acg caa cca caa gcg cca cac tgt tcc gat ggg cag ggg cac ctt  
40

Asp Thr Gln Pro Gln Ala Pro His Cys Ser Asp Gly Gln Gly His Leu

65 70 75 80

caa tgt gga gtc tgt agt tgc gct cct ggt aga ttg ggt agg ctg tgc  
88

Gln Cys Gly Val Cys Ser Cys Ala Pro Gly Arg Leu Gly Arg Leu Cys

85 90 95

gag tgc agt gta gct gag tta tcg agt cct gat ctc gaa agc gga tgt  
36

Glu Cys Ser Val Ala Glu Leu Ser Ser Pro Asp Leu Glu Ser Gly Cys

100 105 110



## 130588.00025.ST25.txt

```

ggc tgt aag act cca tgt gaa aga cac cga gac tgc gca gag tgc ggt      7
20
Gly Cys Lys Thr Pro Cys Glu Arg His Arg Asp Cys Ala Glu Cys Gly
225                230                235                240

gcg ttt aga aca ggc ccc ctg gcc acc aat tgc agc aca gct tgt gct      7
68
Ala Phe Arg Thr Gly Pro Leu Ala Thr Asn Cys Ser Thr Ala Cys Ala
245                250                255

cac act aat gtg acg ctt gca ctt gcg ccc ata tta gat gac ggc tgg      8
16
His Thr Asn Val Thr Leu Ala Leu Ala Pro Ile Leu Asp Asp Gly Trp
260                265                270

tgt aaa gaa aga aca ttg gat aac caa ctg ttt ttt ttc cta gta gaa      8
64
Cys Lys Glu Arg Thr Leu Asp Asn Gln Leu Phe Phe Phe Leu Val Glu
275                280                285

gac gat gcc aga ggc acg gta gtt ctc cgt gtt aga ccg caa gaa aag      9
12
Asp Asp Ala Arg Gly Thr Val Val Leu Arg Val Arg Pro Gln Glu Lys
290                295                300

gga gca gat cat acc caa gca att gta ctg ggg tgt gtt ggg gga atc      9
60
Gly Ala Asp His Thr Gln Ala Ile Val Leu Gly Cys Val Gly Gly Ile
305                310                315                320

gtc gca gtg ggg cta ggg ctc gta ctt gcg tat cgt tta tca gtc gaa      10
08
Val Ala Val Gly Leu Gly Leu Val Leu Ala Tyr Arg Leu Ser Val Glu
325                330                335

```

atc tat gat  
17  
Ile Tyr Asp

<210> 201  
<211> 339  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 201

Glu Lys Arg Glu Gly Lys Ala Glu Asp Arg Gly Gln Cys Asn His Val  
1 5 10 15

Arg Ile Asn Gln Thr Val Thr Phe Trp Val Ser Leu Gln Ala Thr His  
20 25 30

Cys Leu Pro Glu Pro His Leu Leu Arg Leu Arg Ala Leu Gly Phe Ser  
35 40 45

Glu Glu Leu Ile Val Glu Leu His Thr Leu Cys Asp Cys Asn Cys Ser  
50 55 60

Asp Thr Gln Pro Gln Ala Pro His Cys Ser Asp Gly Gln Gly His Leu  
65 70 75 80

Gln Cys Gly Val Cys Ser Cys Ala Pro Gly Arg Leu Gly Arg Leu Cys  
85 90 95

Glu Cys Ser Val Ala Glu Leu Ser Ser Pro Asp Leu Glu Ser Gly Cys  
100 105 110

## 130588.00025.ST25.txt

Arg Ala Pro Asn Gly Thr Gly Pro Leu Cys Ser Gly Lys Gly His Cys  
 115 120 125

Gln Cys Gly Arg Cys Ser Cys Ser Gly Gln Ser Ser Gly His Leu Cys  
 130 135 140

Glu Cys Asp Asp Ala Ser Cys Glu Arg His Glu Gly Ile Leu Cys Gly  
 145 150 155 160

Gly Phe Gly Arg Cys Gln Cys Gly Val Cys His Cys His Ala Asn Arg  
 165 170 175

Thr Gly Arg Ala Cys Glu Cys Ser Gly Asp Met Asp Ser Cys Ile Ser  
 180 185 190

Pro Glu Gly Gly Leu Cys Ser Gly His Gly Arg Cys Lys Cys Asn Arg  
 195 200 205

Cys Gln Cys Leu Asp Gly Tyr Tyr Gly Ala Leu Cys Asp Gln Cys Pro  
 210 215 220

Gly Cys Lys Thr Pro Cys Glu Arg His Arg Asp Cys Ala Glu Cys Gly  
 225 230 235 240

Ala Phe Arg Thr Gly Pro Leu Ala Thr Asn Cys Ser Thr Ala Cys Ala  
 245 250 255

His Thr Asn Val Thr Leu Ala Leu Ala Pro Ile Leu Asp Asp Gly Trp  
 260 265 270

Cys Lys Glu Arg Thr Leu Asp Asn Gln Leu Phe Phe Phe Leu Val Glu  
 275 280 285

Asp Asp Ala Arg Gly Thr Val Val Leu Arg Val Arg Pro Gln Glu Lys  
 290 295 300

130588.00025.ST25.txt

Gly Ala Asp His Thr Gln Ala Ile Val Leu Gly Cys Val Gly Gly Ile  
305 310 315 320

Val Ala Val Gly Leu Gly Leu Val Leu Ala Tyr Arg Leu Ser Val Glu  
325 330 335

Ile Tyr Asp

<210> 202  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(15)

<400> 202  
gaa cat ata cca gca  
15  
Glu His Ile Pro Ala

1 5

<210> 203  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 203

Glu His Ile Pro Ala  
1 5

<210> 204  
<211> 60  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(60)

<400> 204  
ata cca tgt aat aac aaa gga gca cat agt gta gga tta atg tgg tgg  
48  
Ile Pro Cys Asn Asn Lys Gly Ala His Ser Val Gly Leu Met Trp Trp  
1 5 10 15

atg tta gca aga  
60  
Met Leu Ala Arg  
20

<210> 205  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 205  
Ile Pro Cys Asn Asn Lys Gly Ala His Ser Val Gly Leu Met Trp Trp  
1 5 10 15

Met Leu Ala Arg  
20

<210> 206



```

<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Integrin

<220>
<221> CDS
<222> (1)..(39)

<400> 206
aaa gta ata tta gat aga gga agt gta tta gta aca tgt
39
Lys Val Ile Leu Asp Arg Gly Ser Val Leu Val Thr Cys

1             5             10

```

```

<210> 207
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Integrin

<400> 207

Lys Val Ile Leu Asp Arg Gly Ser Val Leu Val Thr Cys
1             5             10

```

```

<210> 208
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Integrin

<220>
<221> CDS
<222> (1)..(24)

```

<400> 208  
tgc tgg gac gat gga tgg tta tgt  
24  
Cys Trp Asp Asp Gly Trp Leu Cys

1 5

<210> 209  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 209

Cys Trp Asp Asp Gly Trp Leu Cys  
1 5

<210> 210  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<220>  
<221> CDS  
<222> (1)..(24)

<400> 210  
tgc tgg gat gac tta tgg tta tgt  
24  
Cys Trp Asp Asp Leu Trp Leu Cys

1 5

<210> 211  
<211> 8  
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 211

Cys Trp Asp Asp Leu Trp Leu Cys  
1 5

<210> 212

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(27)

<400> 212

tgc tta tta aga atg aga agt ata tgt  
27

Cys Leu Leu Arg Met Arg Ser Ile Cys

1 5

<210> 213

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 213

Cys Leu Leu Arg Met Arg Ser Ile Cys  
1 5

<210> 214

<211> 60  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<220>  
 <221> CDS  
 <222> (1)..(60)

<400> 214  
 cca gat aca aga ccc gcc cct gga agt aca gca ccg cca gcg cat gga  
 48  
 Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly  
 1 5 10 15

gta aca agt gct  
 60  
 Val Thr Ser Ala  
 20

<210> 215  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Integrin

<400> 215  
 Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly  
 1 5 10 15

Val Thr Ser Ala  
 20

<210> 216  
 <211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(42)

<400> 216

gag tgg tgt gaa tat tta gga gga tat tta aga tgc tac gca  
42

Glu Trp Cys Glu Tyr Leu Gly Gly Tyr Leu Arg Cys Tyr Ala

1

5

10

<210> 217

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<400> 217

Glu Trp Cys Glu Tyr Leu Gly Gly Tyr Leu Arg Cys Tyr Ala

1

5

10

<210> 218

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Integrin

<220>

<221> CDS

<222> (1)..(18)

<400> 218

130588.00025.ST25.txt

gaa tgg cca gag tat tta  
18  
Glu Trp Pro Glu Tyr Leu

1 5

<210> 219  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin

<400> 219

Glu Trp Pro Glu Tyr Leu  
1 5